

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

1.9
R 53 Ne

THE NEWS LETTER

OF THE

BUREAU OF PUBLIC ROADS

VOL. 3, NO. 6

APRIL, 1928

A. C. ROSE, EDITOR

CONTENTS

THE WORK OF THE BUREAU FOR THE NATIONAL PARK SERVICE - - - - -	1
STATUS OF CURRENT FEDERAL-AID ROAD WORK, AS OF MARCH 31, 1928 - - - - -	3
COST OF CABLE-WAY FOR ZION PARK GRADING CAMP - - - - -	4
NECESSARY APPROACHES CONSTITUTE PART OF A BRIDGE - - - - -	7
MOTOR VEHICLE REGISTRATIONS, FOR 1927 - - - - -	8
MOTOR VEHICLE RECEIPTS, FOR 1927 - - - - -	9
GASOLINE TAX RECEIPTS, FOR 1927 - - - - -	10
DUAL SCREENS INCREASE CAPACITY OF ASPHALT PAVING PLANT - - - - -	11
MONTHLY GALLONAGE OF GASOLINE CONSUMPTION BY MOTOR VEHICLES, FOR 1926 -	13
TRIPLE EARTH-SLIDE-CONTROL METHOD TO BE USED ON OHIO FEDERAL AID PROJECT - - - - -	15
LIP CURB FOR CONCRETE PAVEMENTS SUBMITTED BY 4 STATES - - - - -	18
ESTIMATED STATE AND LOCAL ROAD EXPENDITURES, FOR 1928 - - - - -	20
PROGRESS OF FEDERAL HIGHWAY LEGISLATION - - - - -	21

THE WORK OF THE BUREAU FOR THE NATIONAL PARK SERVICE

EXTRACT FROM AN ADDRESS MADE BY DR. HEWES AT THE ANNUAL CONFERENCE OF THE PARK SUPERINTENDENTS OF THE NATIONAL PARK SERVICE HELD IN SAN FRANCISCO, CALIF. ON FEBRUARY 15, 1928.

(NOT FOR RELEASE)

THE WORK OF THE BUREAU FOR THE NATIONAL PARK SERVICE PROPERLY BEGINS WITH THE SURVEY, BY CAPTAIN KITTREDGE, OF THE TRANSMOUNTAIN HIGHWAY IN GLACIER PARK IN THE FALL OF 1924. THE CONTRACT FOR THIS WORK WAS AWARDED IN JUNE, 1925, AND THE WORK IS NOW 90 PER CENT COMPLETE. SINCE THEN THE BUREAU HAS SURVEYED 52 ADDITIONAL PROJECTS IN THE NATIONAL PARKS IN THE WEST, AT A COST OF \$356,969. THIS IS AT THE RATE OF APPROXIMATELY \$426 PER MILE FOR FINISHED PLANS FOR 838 MILES, BUT THIS FIGURE INCLUDES 491 MILES ON WHICH PLANS AND ESTIMATES WERE ONLY 74 PER CENT COMPLETE ON THE FIRST OF THE YEAR BUT WITH ESTIMATED COMPLETE COSTS.

THE BUREAU HAS HANDLED CONSTRUCTION IN THE NATIONAL PARKS ON 61 PROJECTS. WORK ALREADY BEGUN BY THE PARK SERVICE WAS COMPLETED ON 90.7 MILES, AND WORK IS NOW UNDER WAY ON AN ADDITIONAL 157.3 MILES, MAKING A TOTAL OF 248 MILES OF CONSTRUCTION. THE COST OF THIS CONSTRUCTION WORK, INCLUDING ENGINEERING, IS ESTIMATED AT \$7,470,443, WHICH FIGURE INCLUDES \$581,388 EXPENDED BY THE PARK SERVICE AND ALSO THE ESTIMATED AMOUNT NECESSARY TO COMPLETE THE GOING PROJECTS. THIS CONSTRUCTION IS THUS AT AN AVERAGE COST OF \$30,122 PER MILE. OUR ESTIMATED RESIDENT ENGINEERING TO DATE IS ABOUT 5.7 PER CENT OF THE TOTAL COST AND THE INDICATIONS ARE THAT THIS RATE IS STABILIZED. FOR COMPARISON, OUR ENGINEERING COSTS ON FOREST HIGHWAYS UP TO THE FIRST OF THIS YEAR HAVE BEEN 7.1 PER CENT OF THE TOTAL COST. THE CONSTRUCTION IN THE FORESTS HAS NOT AVERAGED AS HEAVY AS IN THE PARKS AND THIS ACCOUNTS FOR THE SLIGHTLY INCREASED PERCENTAGE OF ENGINEERING. FOR SURVEYS IN THE NATIONAL FORESTS WE HAVE AVERAGED 2.4 PER CENT OF THE TOTAL COSTS, AND OUR ADMINISTRATIVE EXPENSE HAS AVERAGED 2.7 PER CENT. THESE FIGURES ARE FOR A TOTAL OF APPROXIMATELY FIFTY MILLION DOLLARS WORTH OF FOREST HIGHWAYS. THAT IN BRIEF IS THE REPORT OF WORK DONE TO DATE IN THE NATIONAL PARKS.

DURING THE PAST FALL, BY AN ARRANGEMENT APPROVED BY THE SECRETARY OF THE INTERIOR, WE MADE AN INSPECTION OF ABOUT 92 MILES OF PARK HIGHWAYS WHICH IT IS EXPECTED TO LET TO CONTRACT WITHIN THE NEXT 90 DAYS. THIS MILEAGE IS DISTRIBUTED IN 16 PROJECTS AND

THE ESTIMATE OF CONSTRUCTION IS APPROXIMATELY \$4,000,000. PLANS FOR THESE PROJECTS ARE NOW ABOUT READY.

BUT THE ABOVE FIGURES DO NOT TELL THE ENTIRE STORY OF HIGHWAY TRANSPORTATION AS AFFECTING THE NATIONAL PARKS. WITHIN A ZONE FOR THE MOST PART NOT EXCEEDING FIFTY MILES FROM THE WESTERN NATIONAL PARKS, THERE HAVE BEEN CONSTRUCTED BY THE BUREAU FOREST HIGHWAYS LEADING THERETO, TOTALLING 641 MILES, AT A COST OF ABOUT \$7,700,000, AND THERE IS PROJECTED FOR THE 1928 SEASON APPROXIMATELY \$355,000 FOR ADDITIONAL APPROACH HIGHWAYS.

ON THE FEDERAL-AID HIGHWAY SYSTEM THERE HAS ALSO BEEN AN IMPRESSIVE EXPENDITURE FOR HIGHWAYS IN A CORRESPONDING ZONE SURROUNDING THE NATIONAL PARKS. THE TOTAL MILEAGE OF FEDERAL-AID DIRECT-APPROACH PROJECTS IS 478, AND THE TOTAL COST \$8,807,937, OF WHICH FEDERAL FUNDS ARE \$5,374,284. THE AMOUNT BUDGETED FOR THIS YEAR (1928) FOR SUCH DIRECT-APPROACH FEDERAL-AID ROADS IS \$1,799,000. THUS THE TOTAL HIGHWAY CONSTRUCTION FINISHED OR GOING ON AND BENEFITING DIRECTLY THE NATIONAL PARKS AND INVOLVING FEDERAL FUNDS AND SUPERVISION, AMOUNTS TO \$20,539,673, WITH \$6,154,000 ADDITIONAL PROGRAMMED FOR THIS YEAR - A GRAND TOTAL OF \$26,693,673 DIRECTLY TO THE ADVANTAGE OF PARK TRAFFIC.

STATUS OF CURRENT FEDERAL-AID ROAD WORK

FOR THE FISCAL YEAR ENDING JUNE 30, 1928

AS OF MARCH 31, 1928

STATES	BALANCE OF FEDERAL-AID FUND AVAILABLE FOR NEW PROJECTS			APPROVED FOR CONSTRUCTION			AMOUNT PAID STATES DURING FISCAL YEAR			COMPLETED AND PAID FOR DURING FISCAL YEAR			AGREEMENTS NOW IN FORCE			P. S. & E. RECOMMENDED FOR APPROVAL BY DISTRICT ENGINEER			STATES	
	FEDERAL AID	UNDER CONSTRUCTION		ORIGINAL STAGE	FEDERAL AID	MILEAGE		FEDERAL AID	MILEAGE	FEDERAL AID	MILEAGE	FEDERAL AID	MILEAGE	FEDERAL AID	MILEAGE	FEDERAL AID	MILEAGE	FEDERAL AID	MILEAGE	
		ORIGINAL	STAGE			ORIGINAL	STAGE													
Alabama	\$ 2,092,339.77	\$ 4,911,329.02	605.3	57.8	\$ 4	222,163.69	36.1	\$ 1,785,990.68	\$ 4	712,525.58	108.8	\$ 3,810,128.74	407.4	26.5	\$ 1,224,053.97	133.0	31.2	Alabama		
Arizona	3,949,370.70	827,674.26	66.1	4.4	2,035,648.77	265.0	0.5	328,001.50	461,055.26	15.7	844,988.16	68.3	4.9	1,976,369.14	222.2	0.3	Arizona			
Arkansas	2,041,350.55	1,382,350.77	156.7	2.0	3,582,614.87	285.8	9.3	2.0	1,089,862.38	461,241.33	53.8	0.4	3,058,976.48	234.5	12.0	530,829.69	49.3	0.3	Arkansas	
California	4,321,655.69	1,058,699.84	180.0	6.2	1,058,503.98	207,335.84	12.0	1,055,544.96	461,241.33	53.8	0.4	3,058,976.48	234.5	12.0	247,080.30	19.3	2.0	California		
Colorado	3,384,165.78	3,039,669.94	285.8	12.0	1,058,503.98	207,335.84	12.0	1,055,544.96	461,241.33	53.8	0.4	3,058,976.48	234.5	12.0	247,080.30	19.3	2.0	Colorado		
Connecticut	605,113.62	1,353,375.63	11.3	3.9	104,668.27	8.0	18.8	303,860.84	323,917.99	24.7	189,191.47	111.3	2.1	125,283.30	8.0	1.8	Connecticut			
Delaware	1,359,356.97	209,908.50	11.3	3.9	104,668.27	8.0	18.8	1,033,616.41	1,075,546.99	323,917.99	1,970,815.56	166.9	37.3	664,149.65	85.7	8.0	Delaware			
Florida	1,184,512.96	2,380,582.00	200.8	52.4	468,312.12	42.3	11.8	2,339,437.32	236.0	121.0	1,970,815.56	166.9	37.3	725,000.54	54.2	5.4	Florida			
Georgia	663,551.13	3,143,285.44	151.7	82.4	1,320,922.31	167.0	14.9	1,050,478.15	912,725.95	114.3	14.8	6,713,648.58	474.4	46.2	1,050,478.15	912,725.95	46.2	Georgia		
Idaho	2,082,889.02	7,243,789.27	498.6	2.3	3,130,922.31	207.5	2.4	2,335,231.55	912,725.95	114.3	14.8	3,661,053.00	321.7	3.5	1,050,478.15	912,725.95	3.5	Idaho		
Illinois	979,935.31	5,958,406.82	378.2	102.3	3.6	1,403,331.83	102.3	104.5	2,542,650.41	1,947,052.41	186.7	84.0	3,865.72	1,383,229.93	94.3	3.5	Illinois			
Indiana	495,944.58	3,969,183.03	223.5	167.2	1,485,053.09	14.6	1.5	1,191,018.55	393.4	56.5	4	514,211.69	216.5	1.5	963,004.43	1.5	79.0	Indiana		
Kansas	2,175,232.62	4,249,046.52	53.8	7.3	1,620,000.00	10.2	2.0	2,336,71.31	2,385,71.31	122.6	4.1	4,153,037.60	10.2	10.5	103,000.00	20.3	1.5	Kansas		
Kentucky	2,776,815.44	3,802,380.70	349.6	42.4	1,785,581.72	23.5	72.7	2,003,256.81	1,284,212.39	122.6	35.9	3,754,289.35	346.5	42.4	225,735.07	26.6	1.3	Kentucky		
Louisiana	372,776.56	2,709,183.03	196.0	7.5	531,144.70	51.8	6.6	687,103.17	597,801.46	61.7	4.6	2,495,762.90	119.5	7.5	753,764.83	68.3	6.3	Louisiana		
Maine	1,737,931.13	1,533,984.44	33.9	3.3	43,356.00	5.6	5.6	525,159.76	684,159.40	71.2	3.0	310,176.05	33.4	3.0	47,200.00	47.200.00	0.2	Maine		
Maryland	620,573.29	357,375.06	33.4	3.3	1,087,701.70	130.7	3.5	31,500.00	2.1	158,264.74	158,264.74	9.6	2,030,595.00	128.5	6.1	88,500.00	88,500.00	6.1	Maryland	
Massachusetts	2,583,239.41	4,712,981.31	273.1	3.5	1,807,200.00	103.8	6.5	2,084,404.01	1,807,200.00	122.7	9.2	3,860,237.81	214.8	3.5	2,659,855.50	141.9	6.5	Massachusetts		
Michigan	1,268,633.55	4,172,981.31	273.1	3.5	1,807,200.00	103.8	6.5	2,084,404.01	1,807,200.00	122.7	9.2	3,860,237.81	214.8	3.5	2,659,855.50	141.9	6.5	Michigan		
Minnesota	537,471.43	2,667,145.37	266.5	16.8	471,348.54	43.8	19.6	1,510,814.63	1,623,013.55	166.8	15.0	2,282,336.64	246.7	16.8	63,157.37	53.6	19.5	Minnesota		
Mississippi	1,079,823.33	2,737,541.91	206.3	22.7	1,200,333.45	189.2	12.9	2,286,000.18	2,091,982.92	122.7	26.4	1,762,770.08	221.7	22.7	55.1	19.2	12.9	Mississippi		
Missouri	2,415,882.62	2,807,171.70	318.6	4.2	1,200,333.45	189.2	12.9	1,391,982.42	421,911.20	67.9	9.2	3,281,129.04	441.2	4.2	544,375.61	177.5	1.3	Missouri		
Montana	1,936,398.43	5,264,665.43	1,038.7	400.4	2,219,045.72	32.7	2.0	2,688,847.40	575.8	472.3	5,268,000.90	1,050.6	421.5	1,922,562.44	16.8	13.8	Montana			
Nebraska	987,763.95	1,524,733.63	196.5	16.0	1,621,167.91	15.9	18.0	2,476,453.11	553,478.11	119.4	10.7	1,386,016.95	169.4	23.0	1,760,886.26	97.0	8.8	Nebraska		
New Hampshire	313,135.18	1,352,772.73	22.0	1.8	82.0	82.0	82.0	915,372.67	27.8	27.8	3,726,328.38	27.8	27.8	716,067.73	23.6	0.2	New Hampshire			
New Jersey	751,912.00	2,971,535.22	177,210.00	13.5	1,087,200.00	103.8	6.5	2,084,404.01	1,087,200.00	122.7	9.2	787,536.70	52.2	9.2	177,210.00	13.5	19.0	New Jersey		
New Mexico	2,180,643.49	2,265,180.22	181.3	8.0	1,027,988.80	12.9	1.5	1,190,982.06	882,413.37	99.4	10.2	2,050,717.93	175.2	10.1	584,000.00	80.1	10.3	New Mexico		
New York	6,239,507.47	9,370,181.46	1,382,350.77	9.6	1,382,350.77	9.6	1.5	3,180,398.84	1,071,395.95	9.6	8.5	1,545,950.00	19.5	8.5	1,545,950.00	19.5	8.5	New York		
North Carolina	1,488,451.93	892,448.18	43.1	24.9	824,764.14	64.4	7.4	1,201,140.88	1,431,904.59	112.9	9.7	973,448.18	43.1	24.9	833,764.14	14.4	7.4	North Carolina		
North Dakota	1,087,980.62	1,311,661.61	651.5	150.5	518,945.47	171.6	18.7	1,243,689.74	2,054,689.62	164.5	342.1	1,688,155.46	449.5	149.5	550,453.63	149.5	18.7	North Dakota		
Ohio	4,091,176.49	2,939,089.49	22.0	4.2	1,342,336.25	124.8	8.8	1,819,084.74	2,908,029.67	231.9	3.0	3,170,519.26	213.3	3.0	1,760,886.26	213.3	8.8	Ohio		
Oklahoma	1,484,800.55	3,003,684.98	388.1	22.0	357,840.14	27.5	14.0	1,172,741.58	617,029.12	67.6	21.1	2,661,538.37	348.8	21.1	928,043.75	928,043.75	8.2	Oklahoma		
Pennsylvania	2,913,520.24	4,525,930.50	181.3	9.2	2,242,184.11	8.2	1.5	508,384.98	325,162.75	16.5	32.6	1,287,508.20	71.2	9.2	2,282,184.11	8.2	9.2	Pennsylvania		
Rhode Island	644,887.53	3,470,181.46	242.7	24.2	1,027,988.80	12.9	1.5	2,285,430.31	1,071,395.95	13.1	3.0	5,072,747.44	32.2	1.5	1,550,980.51	97.5	97.5	Rhode Island		
South Carolina	153,714.66	2,659,985.16	233.1	129.1	377,000.00	38.4	43.8	1,027,988.80	882,413.37	10.1	49.5	4,412,410.41	30.8	49.5	38,333.15	19.0	19.0	South Carolina		
South Dakota	900,284.60	2,258,682.25	629.8	122.4	2,258,682.25	37.6	47.8	886,143.43	678,550.24	232.0	55.5	2,255,190.96	165.9	55.5	930,500.00	174.0	174.0	South Dakota		
Tennessee	832,337.02	3,138,728.14	210.8	23.8	1,404,261.65	36.1	94.3	1,580,594.64	963.3	105.4	2,255,190.96	165.9	55.5	1,974,700.00	174.0	174.0	Tennessee			
Texas	6,188,200.62	6,168,325.16	431.3	24.0	1,455,887.46	137.5	96.6	3,239,455.30	4,227,106.14	135.8	464.0	6,237,286.65	426.8	464.0	1,927,765.44	165.8	165.8	Texas		
Utah	601,204.18	1,677,878.04	133.9	14.6	344,705.72	33.1	9.8	988,735.95	1,120,181.11	128.8	1.5	1,472,092.27	118.1	1.5	1,525,805.81	48.9	48.9	Utah		
Vermont	351,589.78	446,721.78	1,331,648.07	77.8	842,688.64	69.4	8.4	1,152,447.98	824,401.18	61.7	22.6	2,659,489.68	77.9	4.0	48,440.00	48,440.00	4.4	Vermont		
Virginia	86,624.95	1,431,148.07	77.8	4.0	744,400.95	44.4	1,382,714.38	427,106.32	101.1	49.5	1,740,384.41	70.7	49.5	644,317.13	89.2	6.4	Virginia			
Washington	767,657.01	1,335,333.43	183.2	18.2	67,898.84	4.4	4.4	971,103.42	1,081,600.00	1,308,714.38	62.1	1,744,700.00	90.2	42.8	18.1	18.1	18.1	Washington		
West Virginia	1,162,965.69	2,253,221.16	181.9	18.0	567,000.00	44.9	52.2	2,253,221.16	1,081,600.00	1,308,714.38	62.1	1,744,700.00	90.2	42.8	60,374.43	44.4	4.4	West Virginia		
Wisconsin	971,154.15	1,321,951.00	91.9	12.1	1,211,742.76	84.2	52.2	830,976.07	1,081,600.00	1,308,714.38	62.1	1,744,700.00	90.2	42.8	68,522.55	52.2	5.1	Wisconsin		
Wyoming	1,121,742.76	3,317,101.89	133.9	18.8	1,677,878.04	133.9	14.6	2,253,430.31	276.7	108.33	27.8	278,727.48	15.8	15.8	60,385.43	3.2	3.2	Wyoming		
TOTALS	94,116,118.45	126,348,015.43	11,510.8	1,726.3	28,725,380.11	2,353.6	32.0	64,076,747.38	64,076,747.38	22,929,324.77	68,289,324.77	1,662.5	1,662.6	122,913,490.45	11,489.3	1,733.9	32,287,886.09	2,385.3	983.4	TOTALS

* Includes projects reported completed (final vouchers not yet paid) totaling: Federal aid, \$ 3,351,738.01

State: Original

State: 3,178.9

State: 607.4

COST OF CABLE-WAY FOR ZION PARK GRADING CAMP

COMPILED FROM A REPORT SUBMITTED BY P. J. TRONSON
OF THE DIVISION OF MANAGEMENT

(NOT FOR RELEASE)

BECAUSE THE CONSTRUCTION CAMP, WHICH WAS LOCATED WITHIN EASY WALKING DISTANCE OF THE TUNNEL AND GRADING WORK ON THE ZION NATIONAL PARK PROJECT IN UTAH, WAS INACCESSIBLE TO TRAVEL FROM THE OUTSIDE, IT WAS NECESSARY TO BUILD A CABLE-WAY SHOWN IN THE ACCOMPANYING SKETCH, TO ELEVATE SUPPLIES AND MATERIALS ABOUT 400 FEET UP THE SIDE OF THE CANYON. THE DESCRIPTION AND COSTS OF CONSTRUCTING THE CABLE-WAY, WHICH COVERS A HORIZONTAL DISTANCE OF APPROXIMATELY 800 FEET, FOLLOW:

DESCRIPTION OF CABLE-WAY

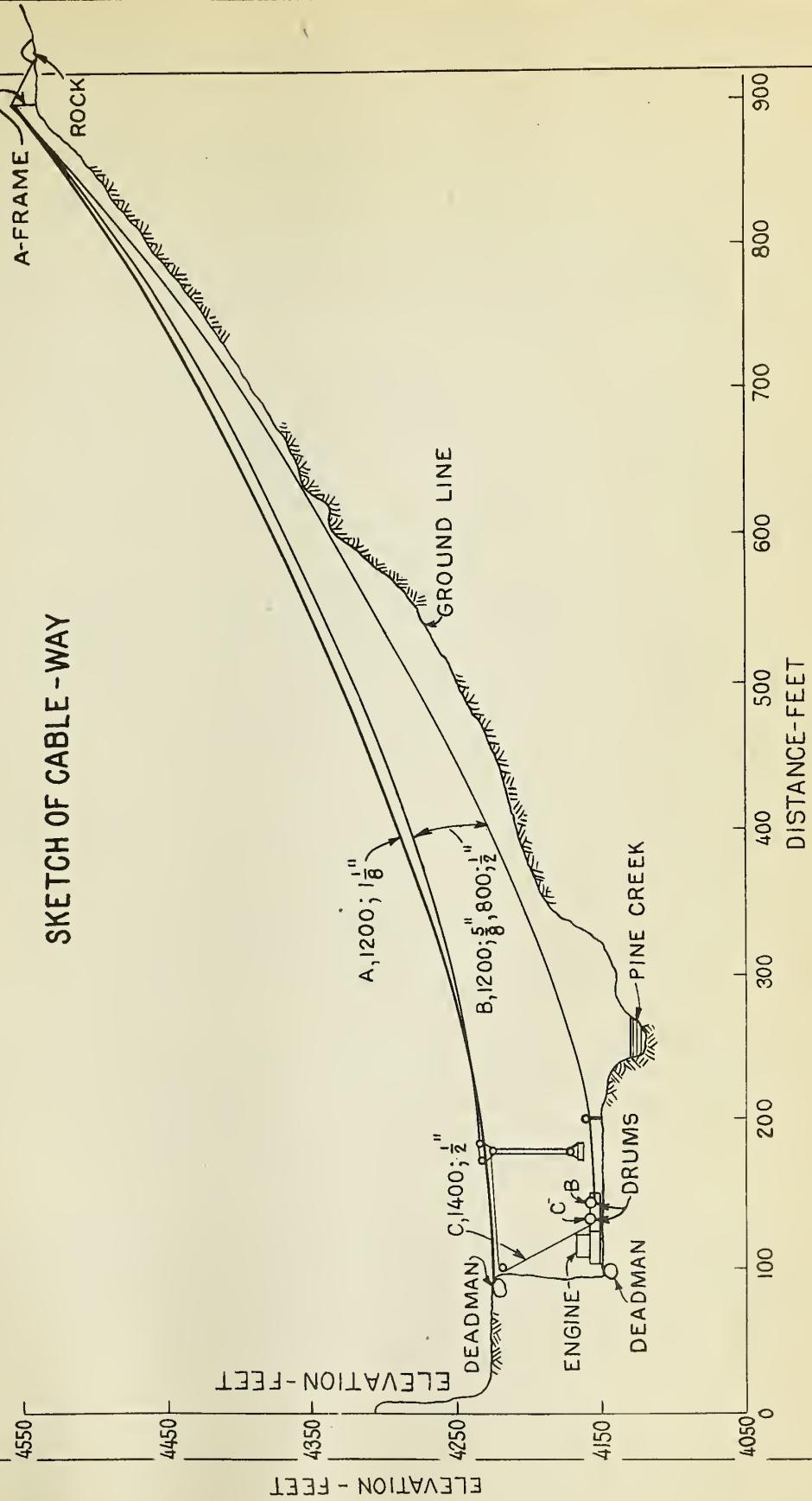
THE TOTAL LENGTH OF THE MAIN 1-1/8-INCH CARRIER CABLE USED IN THE CONSTRUCTION WAS 1,200 FEET. TWO SMALLER CABLES OPERATE THE CARRIER WHICH RUNS ON THE MAIN CARRIER CABLE. A 35-HORSE POWER NOVO STATIONARY ENGINE WITH TWO DRUMS WAS USED TO CONTROL THE OPERATING CABLES. THE HOISTING CABLE CONSISTED OF 1,200 FEET OF 5/8-INCH AND 800 FEET OF 1/2-INCH CABLE, AND THE PULL-BACK CABLE WAS 1,400 FEET IN LENGTH. AT THE UPPER END, THE 1-1/8-INCH MAIN CARRIER CABLE WAS PASSED OVER AN A-FRAME AND ANCHORED TO A LARGE ROCK, AND AT THE BOTTOM IT WAS FASTENED TO A "DEADMAN", FIXED IN THE TOP OF THE CLIFF, ABOUT 75 FEET ABOVE WHERE THE CARRIER WAS LOADED. WHEN THE PULL-BACK CABLE IS RELEASED, THE CARRIER DESCENDS PREPARATORY TO LOADING OR UNLOADING. MATERIALS ARE TRANSPORTED EITHER BY PLACING IN A 3-1/2-FOOT BY 8-FOOT BOX PROVIDED FOR THE PURPOSE, OR BY PICKING THEM UP DIRECTLY WITH THE LIFTING HOOK.

THE METHOD OF CONSTRUCTION CONSISTED IN PULLING THE 5/8-INCH CABLE TO THE TOP BY HAND, PASSING IT OVER THE PULLEY AND BACK TO THE HOISTING ENGINE SO THAT THE LARGE CABLE AND OTHER MATERIALS COULD BE HAULED TO THE TOP BY THE POWER UNIT.

COST DATA

THE INFORMATION AS TO THE COST OF THE ENGINE, CABLES, AND LABOR WERE OBTAINED FROM THE BOOKS OF THE CONTRACTING COMPANY. THE COSTS OF DISMANTLING AND DEPRECIATION WERE ESTIMATED.

SKEETCH OF CABLE-WAY



COST OF CONSTRUCTION OF CABLE-WAY

COST OF MATERIALS:

COST OF 35-H.P. NOVO DONKEY ENGINE.....	\$1,200.00
FREIGHT AND DELIVERY.....	<u>120.00</u>
	SUB-TOTAL
	\$1,320.00
COST OF CABLES:	
1,200 LINEAL FEET OF 1-1/8-INCH.....	351.00
1,200 DO DO 5/8-INCH.....	182.00
2,400 DO DO 1/2-INCH.....	268.00
FREIGHT AND DELIVERY.....	<u>230.00</u>
	SUB-TOTAL
	1,031.00
COST OF LUMBER, POLES, ETC., DELIVERED	<u>170.00</u>
	TOTAL COST OF MATERIALS
	\$2,521.00

COST OF LABOR (FOR 5-DAY CONSTRUCTION PERIOD):

1 FOREMAN - 5 DAYS @ \$7.50.....	37.50
1 CARPENTER - 5 DO @ 5.00.....	25.00
1 MECHANIC - 5 DO @ 5.00.....	25.00
4 LABORERS - 5 DO @ 3.50.....	<u>70.00</u>
	TOTAL COST OF LABOR
	<u>157.50</u>
	TOTAL COST OF CONSTRUCTION....
	\$2,678.50

THE COST OF OPERATING THE CABLE-WAY PER DAY WAS \$17.76
SEGREGATED AS FOLLOWS:

1 DONKEY OPERATOR.....	\$ 5.00
3 LABORERS @ \$3.50.....	10.50
9 GALLONS GASOLINE @ \$0.24	2.16
OIL.....	<u>0.10</u>
	TOTAL COST OF ONE DAY'S OPERATION....
	\$17.76

THE TIME CONSUMED PER LOAD VARIED FROM 9 TO 20 MINUTES,
AND THE MAXIMUM WEIGHT CARRIED WAS 1,800 POUNDS. FOR AN AVERAGE
ROUND TRIP OF THE CARRIER OF 12 MINUTES, THE COST PER LOAD PER
8-HOUR DAY BASED UPON THE FOREGOING FIGURES WOULD BE

$$\frac{12}{60} \times \$17.76 \times 1/8 = \$0.44$$

THE OVERHEAD COST MAY BE CONSIDERED AS THE TOTAL COST OF
THE CABLE-WAY IN PLACE, PLUS THE COST OF DISMANTLING, LESS THE
SALVAGE VALUE OF THE EQUIPMENT AT THE END OF 6 MONTHS OF OPERATION.
THE COST OF DISMANTLING IS ESTIMATED AT 1/2 THE COST OF THE CON-
STRUCTION LABOR, AND THE SALVAGE VALUE OF ALL THE EQUIPMENT AT 80
PER CENT OF THE NEW PRICE OF THE ENGINE AND CABLES, AS FOLLOWS:

$$\text{OVERHEAD PER DAY} = \frac{\$2,678 + \$79 - \$1,600}{180 \text{ DAYS}} = \$6.42$$

$$\text{OVERHEAD PER LOAD} = \frac{\$6.42}{40} = \$0.16$$

$$\text{TOTAL COST PER LOAD} = \$0.44 + \$0.16 = \$0.60$$

NECESSARY APPROACHES CONSTITUTE PART OF A BRIDGE

THE ATTITUDE OF THE BUREAU, AS TO WHETHER AN APPROACH SHOULD BE CONSIDERED AS CONSTITUTING A PART OF A BRIDGE, WAS EXPRESSED AFFIRMATIVELY IN ANSWER TO A QUERY MADE BY THE STATE HIGHWAY DEPARTMENT CONCERNING THE STATUS OF A PROPOSED STATE-OWNED TOLL BRIDGE ACROSS THE RED RIVER NEAR FULTON, ARK. IN THIS CASE THE MAIN BRIDGE ACROSS THE RIVER REQUIRED AN EMBANKMENT APPROACH, TOGETHER WITH 4 BRIDGE OPENINGS, EACH OF MORE THAN 20 FEET CLEAR SPAN, WHICH EXTENDED SOUTHWESTWARD FOR A DISTANCE OF 2 MILES ACROSS AN OVERFLOW AREA COVERED ANNUALLY TO AN AVERAGE DEPTH OF 9 FEET WITH FLOOD WATERS FROM THE RED RIVER. THIS LONG APPROACH WAS NECESSARY TO CONNECT THE BRIDGE OVER THE MAIN CHANNEL WITH HIGH GROUND SO THAT IT WOULD BE AVAILABLE FOR TRAVEL FOR 12 MONTHS IN THE YEAR.

THE BUREAU HELD THAT THIS PROPOSED EMBANKMENT WITH THE FOUR BRIDGE OPENINGS COULD PROPERLY BE REGARDED AS CONSTITUTING AN APPROACH TO THE BRIDGE ACROSS THE MAIN CHANNEL OF THE RIVER, AND AS SUCH IT WOULD BE ELIGIBLE FOR FEDERAL AID TO THE EXTENT OF 50 PER CENT OF ITS COST. LEGAL CITATIONS WERE GIVEN TO SHOW THAT IT IS WELL ESTABLISHED BY COURT DECISIONS THAT NECESSARY APPROACHES SHOULD BE CONSIDERED AS PART OF A BRIDGE WHERE THE MAIN BRIDGE WOULD BE INACCESSIBLE TO TRAFFIC WITHOUT THE APPROACH.

(COMPILED FROM REPORTS OF STATE AUTHORITIES)

STATES AND DISTRICT OF COLUMBIA	1927 REGISTERED MOTOR VEHICLES, INDIVIDUAL & COMMERCIALLY OWNED		OTHER REGISTERED Vehicles		TAX-EXEMPT MOTOR CARS AND MOTORCYCLES		OFFICIAL MOTOR CARS AND MOTORCYCLES		NUMBER OF LICENSES, OR PERMITS (AUTOS)		1926 GRAND TOTAL REGISTERED MOTOR CARS AND TRUCKS		YEAR'S CHANGE IN MOTOR VEHICLE REGISTRATIONS NUMBER, INCREASE OR DECREASE (-)		STATES AND DISTRICT OF COLUMBIA				
	INDIVIDUAL REGISTERED Vehicles	COMMERCIAL REGISTERED Vehicles	MOTOR Vehicles	TRAILERS 4/	MOTOR- CYCLES	U.S. CARS	STATE AND LOCAL CARS	MOTOR- CYCLES (OFFIC)	DEALERS	OPERATORS	CHAUFFERS	DEALERS	OPERATORS	CHAUFFERS	PER CENT	PER CENT	STATES AND DISTRICT OF COLUMBIA	STATES AND DISTRICT OF COLUMBIA	
ALABAMA	243,333	211,633	31,906	1,472	40	167	-	-	1,319	-	1,630	220	250	17,309	7.6	ALABAMA	ALABAMA		
ARIZONA	81,047	79,802	1,245	-	271	176	815	-	212	400	401	73,682	7,385	10.0	1.4	ARIZONA	ARIZONA		
CALIFORNIA	1,693,195	1,479,411	5/	174,524	32,044	1,977	303	303	479	4,932	20,419	(2,851)	92,720	5.8	5.8	5.8	CALIFORNIA	CALIFORNIA	
COLORADO	245,107	23,355	213,784	34,126	9,444	1,217	5/	23,214	461	3,270	129,732	111,193	1,600,475	1,600,475	0.0	0.0	COLORADO	COLORADO	
CONNECTICUT	281,921	238,012	43,012	88	150	3,083	233	-	5,000	2/	333,881	-	263,13	18,286	6.9	6.9	CONNECTICUT	CONNECTICUT	
DELAWARE	47,124	38,037	9,087	243	313	4,4	-	-	5,138	2/	51,945	-	44,824	2,280	5.1	5.1	DELAWARE	DELAWARE	
FLORIDA	384,734	332,979	8/	61,000	1,000	1,23	-	-	205	2,947	-	4,949	40,726	(6,268)	-1.7	FLORIDA	FLORIDA		
GEORGIA	300,635	262,633	38,005	-	905	934	-	-	752	-	2,553	277,488	23,167	8.4	8.4	GEORGIA	GEORGIA		
ILLINOIS	104,000	91,306	10,350	-	186	440	103	1,210	-	406	-	476	94,760	6,576	6.9	6.9	ILLINOIS	ILLINOIS	
INDIANA	1,438,935	1,254,421	5/	184,564	3,489	6,135	979	10/	4,534	100,598	1,370,503	68,482	5,01	5,01	5.0	5.0	INDIANA	INDIANA	
KANSAS	63,637	63,339	116,738	6,589	6,589	3,184	4083	-	2,384	33,212	777,326	41,311	5.3	5.3	5.3	5.3	KANSAS	KANSAS	
LOUISIANA	704,2031	649,390	54,894	-	170	1,787	44	-	2,827	2/	2,964	-	698,175	52,205	0.7	0.7	LOUISIANA	LOUISIANA	
MAINE	501,901	447,273	54,628	-	1,218	192	192	-	2,350	1,525	-	491,276	10,625	2.2	2.2	MAINE	MAINE		
MARYLAND	285,551	255,882	25,235	-	603	603	603	1,742	-	59	1,051	281,557	4,064	1.4	1.4	MARYLAND	MARYLAND		
MISSISSIPPI	255,000	216,000	35,000	3,500	-	209	-	-	1,087	-	14,177	239,500	15,500	6.5	6.5	MISSISSIPPI	MISSISSIPPI		
MISSOURI	153,223	132,927	26,936	1,012	1,255	64	1,173	66	1,297	186,975	7,309	151,486	12,137	8.0	8.0	MISSOURI	MISSOURI		
NEVADA	270,760	265,760	5,167	516	2,415	1,969	950	-	6,788	33,614	40,761	252,882	18,083	7.1	7.1	NEVADA	NEVADA		
NEW HAMPSHIRE	1,154,173	998,781	5/	75,748	443	7,245	556	800	2,046	102,285	67,464	690,150	35,918	0.6	0.6	NEW HAMPSHIRE	NEW HAMPSHIRE		
NEW JERSEY	245,682	181,801	17,832	3,565	3,565	3,565	3,565	371	10/	2,450	252	220,954	76,483	3,2	3.2	NEW JERSEY	NEW JERSEY		
NEW MEXICO	196,431	161,431	21,804	2,316	2,316	74	74	-	2,087	-	17,988	630,225	16,397	2.6	2.6	NEW MEXICO	NEW MEXICO		
NEVADA	61,703	61,703	11,116	1,739	1,835	311	1,128	3	2,857	5,230	2,050	128,843	6,843	6.2	6.2	NEVADA	NEVADA		
NEVADA	112,335	94,173	16,202	1,156	229	1,156	1,156	1,156	1,156	3	461	654,524	28,865	4.2	4.2	NEVADA	NEVADA		
NEVADA	373,412	342,357	5/	20,414	1,886	1,159	1,159	226	1,029	3,052	-	3,052	103,956	338	3.4	3.4	NEVADA	NEVADA	
NEVADA	96,309	83,415	8,761	5,622	5,622	5,622	5,622	404	-	533	-	-	36,773	7,139	1.9	1.9	NEVADA	NEVADA	
NEW YORK	562,419	57,630	586,610	1,827	1,827	837	837	708	5294	913	541	73,474	43,242	24,014	1,762	NEVADA	NEVADA		
NEW YORK	53,291	57,630	1,548	1,53	1,53	1,53	1,53	170	-	814,593	6,422	651,415	60,981	9,4	9.4	NEW YORK	NEW YORK		
NEW YORK	1,937,918	1,624,553	313,383	6,936	16,347	1,666	1,666	1,666	1,216	1,282	1,282	530	26,369	54,936	4,295	4.295	NEW YORK	NEW YORK	
NEW YORK	3/	430,223	390,223	15,871	1,216	1,616	1,616	1,616	5,419	-	6,330	1,315,434	122,484	45,452	45,452	45,452	NEW YORK	NEW YORK	
NEW YORK	1,570,734	1,274,402	12,134	7,749	2,362	9,087	-	-	28,987	-	-	1,475,082	157,882	21,873	1.8	1.8	NEW YORK	NEW YORK	
NEW YORK	503,126	437,776	65,350	1,200	530	1,200	1,200	1,200	1,132	1,132	604	39,355	15,769	1,490,488	90,488	6.1	6.1	NEW YORK	NEW YORK
NEW YORK	244,372	223,590	20,950	7,800	2,030	1,287	1,287	1,287	1,132	1,132	604	39,355	233,568	11,004	4.7	4.7	NEW YORK	NEW YORK	
NEW YORK	1,554,315	1,554,315	200,357	3,780	1,245	-	-	-	20,871	1,564,161	-	1,455,183	99,731	4,295	4.295	4.295	NEW YORK	NEW YORK	
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	1,315,434	122,484	5.7	5.7	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	118,014	138,861	19,153	57	1,250	56	56	-	571	87	300	136,860	-	110,745	7,268	6.6	6.6	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	180,401	179,571	19,054	1,387	1,184	91	91	-	509	-	-	1,019	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	294,657	269,086	4/	18,533	-	229	85	-	532	-	-	1,019	-	168,220	14,322	0.8	0.8	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	1,111,070	996,379	115,010	9,826	3,084	2,505	-	-	3,223	41,775	11,490	1,049,868	61,338	5.9	5.9	5.9	PENNSYLVANIA	PENNSYLVANIA	
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	85,380	8,596	10.1	10.1	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	74,063	5,464	7.4	7.4	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	322,614	32,614	6.6	6.6	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	363,279	21,304	5.9	5.9	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	227,836	21,304	5.9	5.9	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,446	10.2	10.2	PENNSYLVANIA	PENNSYLVANIA
PENNSYLVANIA	33,976	70,731	13,245	-	531	173	173	-	501	28	-	6558	-	161,189	18,4				

NOTE:-

THIS TABLE LISTS ONLY THE NUMBER OF
Vehicles See Table M-2 (1927).
ALL STATES REPORT CALENDAR YEAR TO
DECEMBER 31, AS THEIR FINANCIAL
THE FIRST 3 COLUMNS RECORD THE REGI-
Fees ELIMINATING REGISTRATIONS AND
SUBDIVIDED AS INDICATED. PASSENGER
AND ROAD TRACTORS. IN THE THIRD COL-
TORIES SHOWING THE EXTENT AND KIND
FEBRUARY 1928] ISSUE OF "BUS TRANS-
PORTATION" MAGAZINE.

THE STATE'S INCLUDE TRAILERS WITH MOTOR TRUCKS, AS NOTED: OTHER STATES DO NOT REGISTER SAME.

RECORDED IN 1925 BY BUREAU OF BUDGET, AND INCLUDES 7,859 "CARS-AT-LARGE" REPORTED IN 1925 BY BUREAU OF BUDGET, AND 1 INCLUDES 7,859 "CARS-AT-LARGE" BT SIX MONTHS OF YEAR REGISTRATION ONLY AS YEAR COMMENCED JULY 1, 1925. AUTOMOBILE CARS INCLUDED IN FIRST THREE COLUMNS AS \$2.00 FEE CHARGED. PRELIMINARY DATA, SUBJECT TO REVISION.

MOTOR VEHICLE REGISTRATION FEES, LICENSES, PERMITS, FINES, ETC. 1927
ALSO GROSS RECEIPTS AND DISPOSITION OF FUNDS
(FOR CALENDAR YEAR) ²INV-2 (1927)
R.S.A.

(COMPILED FROM REPORTS OF STATE AUTHORITIES)

STATES AND DISTRICT OF COLUMBIA	TOTAL GROSS RECEIPTS	REGISTRATION RECEIPTS ³					MISCELLANEOUS RECEIPTS					DISPOSITION OF GROSS RECEIPTS					
		MOTOR CAR RECEIPTS TOTAL FROM MOTOR CARS	PASSENGER CARS AND BUSES	TRUCKS AND TRACTORS	TRAILERS	MOTOR- CYCLES	DEALER'S LICENSE	CHAUFFEUR OPERATOR PERMIT	OTHER MISCELL- ANEALBE	COLLECTION AND ADM- INISTRATION	STATE HIGHWAY	STATE AND COUNTY ROADS	STATE BONDS ⁴	FOR RURAL HIGHWAY PURPOSES	STATE ROADS	LOCAL ROADS	FOR OTHER PURPOSES
ALABAMA	\$ 3,127,000	\$ 3,109,976	-	-	-	-	\$ 3,919	\$ 246	\$ 4,856	\$ 125,956	\$ 609,765	\$ 1,547,429	-	-	-	-	
ARIZONA	\$ 454,428	433,084	3,619,482	6,362,272	1,459,356	4,861,767	2,640,461	4,351,155	1,410	2,330	50,223	505,700	454,929	476,005	(C) 2,307,231	5,151,453	
ARKANSAS	6,755,356	7,422,868	4,486,922	5,894,686	1,149,323	5,617,682	1,005,056	1,005,044	1,274	1,264	979,629	541,342	605,700	760,105	-	-	
CALIFORNIA	16,000,222	16,000,222	5,196,922	4,689,044	1,684,676	3,619,768	3,619,768	3,619,768	3,619,768	3,619,768	1,382	42,319	80,011	605,700	-	-	
CONNECTICUT	6,105,684	6,085,269	5,713,682	5,692,128	3,077,130	1,523,448	3,885	3,885	33,857	33,857	1,382	564,154	845,289	845,289	1,276,586	6,1966	
DELAWARE	5,622,128	5,622,128	3,688,646	3,039,948	519,598	5,242,222	40,260	4,848	4,848	4,848	114,730	958	598,248	598,248	-	-	
FLORIDA	3,192,976	3,188,646	1,211,031	1,247,663	5,793	247,225	20,644	20,644	20,644	20,644	12,326	1,345,916	1,345,916	1,345,916	5,606,010	42,568	
GEORGIA	14,502,185	14,502,185	13,989,037	10,635,418	3,293,925	61,330	50,495	50,495	50,495	50,495	353,472	384,450	51,191,015	51,191,015	11,190,015	11,190,015	
ILLINOIS	5,430,806	5,430,806	3,919,422	3,785,393	955,678	3,322	8,354	8,354	8,354	8,354	50,495	50,495	50,495	50,495	50,495	50,495	
INDIANA	10,371,639	9,722,671	7,185,393	7,185,393	955,678	955,678	50,495	50,495	50,495	50,495	78,604	77,693	63,155	63,155	51,371,524	51,371,524	
KANSAS *	6,518,622	6,518,622	3,375,500	98,8,522	-	-	5,262	29,888	29,888	29,888	16,143	9,747	224,288	224,288	-	-	
Louisiana *	4,199,347	4,199,347	1,900,811	1,535,384	415,427	3,375	6,733	48,683	405,848	405,848	112,596	201,546	8,130,251	8,130,251	-	-	
MARYLAND	12,558,045	12,558,045	10,557,722	7,318,651	3,233,131	19,468	32,177	60,930	1,319,349	1,319,349	238,791	837,713	1,265,655	1,265,655	10,821,659	10,821,659	
MASSACHUSETTS	13,156,442	13,156,442	10,557,722	7,318,651	3,233,131	19,468	32,177	60,930	1,319,349	1,319,349	238,791	837,713	1,265,655	1,265,655	1,048,258	1,048,258	
MICHIGAN	10,984,210	10,984,210	9,233,954	6,556,559	12,464,719	4,062,050	1,889,732	2,127	12,464,719	12,464,719	50,495	10,117,214	50,495	50,495	6,000,000	1,048,258	
MINNESOTA	10,233,644	10,233,644	10,110,633	8,210,901	1,889,732	1,889,732	1,889,732	1,889,732	1,889,732	1,889,732	20,330	41,088	6,449,904	6,449,904	1,048,258	1,048,258	
MISSISSIPPI	2,556,627	2,556,627	2,280,942	-	-	-	-	-	-	-	335,685	125,602	202,077	2,228,948	2,228,948	2,228,948	
KENTUCKY *	6,253,009	6,253,009	1,136,103	1,038,235	853,491	183,744	1,087	1,087	1,087	1,087	401,822	11,715,182	11,715,182	11,715,182	5,136,025	5,136,025	
NEBRASKA	3,740,553	3,740,553	3,016,332	566,352	5,079	3,728	43,116	43,116	43,116	43,116	676	58,027	11,088,511	11,088,511	1,105,245	1,105,245	
NEVADA	229,819	229,819	1,536,291	1,536,291	-	-	-	-	-	-	12,333	11,933	1,088,511	1,088,511	2,339,999	2,339,999	
NEW HAMPSHIRE	9,253,954	9,253,954	8,215,954	5,620,418	3,613,546	66,552	7,137,140	28,590	28,590	28,590	28,590	28,590	15,821,659	15,821,659	130,087	130,087	
NEW JERSEY	12,553,520	12,553,520	9,253,954	5,620,418	3,613,546	66,552	7,137,140	28,590	28,590	28,590	28,590	28,590	15,821,659	15,821,659	1,758,247	1,758,247	
NEW MEXICO	31,587,689	28,315,753	20,140,901	8,234,853	76,825	2,621	8,759	188,907	188,907	188,907	188,907	188,907	53,755,655	53,755,655	4,530,766	4,530,766	
NEW YORK	13	13	3,246,531	2,412,926	1,771,870	2,076,56	1,771,870	1,771,870	1,771,870	1,771,870	2,465,776	560,117	1,922,049	1,922,049	22,072,465	22,072,465	
NORTH DAKOTA	1,545,442	1,545,442	1,570,180	1,382,978	231,322	1,362	-	-	-	-	13,000	14,150,000	14,150,000	4,743,169	4,743,169	14,743,169	
OKLAHOMA *	10,745,471	10,388,977	9,253,954	8,215,954	7,137,140	28,590	28,590	28,590	28,590	28,590	9,797	169,199	366,883	5,182,532	5,182,532	647,721	
OREGON	5,753,912	5,753,912	5,356,627	5,408,300	917,337	1,337	11,209	29,312	29,312	29,312	66,636	94,377	1,342,347	1,342,347	1,342,347	1,342,347	
PENNSYLVANIA	26,017,240	26,017,240	19,633,780	13,741,183	5,958,597	41,031	35,775	330,316	330,316	330,316	35,775	35,775	15,626,703	15,626,703	4,803,200	4,803,200	
RHODE ISLAND	5,225,447	5,225,447	4,444,401	4,444,401	4,046	1,034	13,440	2,438	2,438	2,438	273,720	105,678	179,304	1,501,550	1,501,550	1,501,550	
SOUTH CAROLINA	2,187,250	2,187,250	2,076,56	1,771,870	1,771,870	22,386	1,922	23,457	1,922	1,922	61,508	2,178,250	2,178,250	9,000	9,000	9,000	
SOUTH DAKOTA	2,451,531	2,451,531	2,412,266	30,660	30,660	1,072	-	-	-	-	17,983	67,463	1,236,939	1,236,939	1,197,519	1,197,519	
TEXAS	3,725,775	3,725,775	15,045,978	12,583,812	2,462,166	117,998	12,024	55,872	69,678	69,678	324,981	558,805	3,672,850	3,672,850	4,143,323	4,143,323	
UTAH *	6,212,403	6,212,403	5,356,627	5,408,300	917,337	1,337	11,209	29,312	29,312	29,312	66,636	94,377	1,342,347	1,342,347	1,342,347	1,342,347	
VERMONT	1,878,341	1,878,341	4,143,394	4,143,394	4,692	6,154	35,775	33,445	33,445	33,445	281,187	281,187	11,916,619	11,916,619	1,758,331	1,758,331	
WASHINGTON	5,215,553	5,215,553	4,801,394	4,801,394	4,692	6,154	35,775	33,445	33,445	33,445	281,187	281,187	1,342,347	1,342,347	1,342,347	1,342,347	
WEST VIRGINIA	6,462,254	5,830,358	4,695,495	3,123,443	4,695,495	4,695,495	4,695,495	3,999,517	3,999,517	3,999,517	281,187	281,187	4,960,884	4,960,884	892,976	892,976	
WISCONSIN	4,004,391	3,165,153	3,084,219	1,645,419	1,645,419	3,996	5,567	54,069	54,069	54,069	103,958	103,958	1,342,347	1,342,347	1,342,347	1,342,347	
WYOMING	5,656,807	9,188,220	8,182,400	1,645,419	1,645,419	3,996	17,862	1,645,419	1,645,419	1,645,419	91,003	550,000	1,468,000	1,468,000	274,088	274,088	
OLY. OF C.OL.	531,044	120,279	404,019	110,444	-	1,151	1,958	185,271	185,271	185,271	122,365	159,388	-	-	251,779	251,779	
GRAND TOTAL	268,651,211	239,515,394	19/	19/	1,005,315	412,744	1,999,180	13,449,421	12,269,157	-	-	14,876,410	189,985,265	53,577,653	36,087,558	4,533,942	4,533,942
GRAND TOTAL	301,061,132	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

NOTE-
¹ FINANCIAL DATA ONLY ON THIS TABLE: FOR NUMBER OF REGISTRATIONS, LICENSES, ETC. SEE TABLE INV-1 (1927).
² ALL STATES REPORT ACCOUNTS FOR CALENDAR YEAR EXCEPT NORTH CAROLINA WHICH REPORTS FOR SIX MONTHS JULY 1 TO OCT. 31. ³ AVERAGE ESTIMATION FOR LAST HALF OF YEAR.
⁴ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND. ⁵ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁶ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁷ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁸ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁹ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
¹⁰ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
¹¹ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
¹² STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
¹³ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
¹⁴ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
¹⁵ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
¹⁶ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
¹⁷ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
¹⁸ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
¹⁹ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
²⁰ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
²¹ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
²² STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
²³ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
²⁴ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
²⁵ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
²⁶ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
²⁷ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
²⁸ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
²⁹ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
³⁰ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
³¹ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
³² STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
³³ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
³⁴ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
³⁵ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
³⁶ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
³⁷ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
³⁸ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
³⁹ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁴⁰ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁴¹ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁴² STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁴³ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁴⁴ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁴⁵ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁴⁶ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁴⁷ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁴⁸ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁴⁹ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁵⁰ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁵¹ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁵² STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁵³ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁵⁴ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁵⁵ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁵⁶ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁵⁷ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁵⁸ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁵⁹ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁶⁰ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁶¹ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁶² STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁶³ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁶⁴ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁶⁵ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁶⁶ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁶⁷ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁶⁸ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁶⁹ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁷⁰ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁷¹ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁷² STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁷³ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY FUND.
⁷⁴ STATE RECEIPTS SHOWN AS TOTALS UNDER "STATE HIGHWAY FUND" FOR STATE HIGHWAY

STATE AND DISTRICT OF COLUMBIA	GROSS TAX BASED ON REFUND REFUND REFUND REFUND	EXEMPTION REFUNDS (EXCISE TAX AND TAX LAW ON VEHICLES (1))	OTHER REFUNDS TAXES ON VEHICLES (2)	TOTAL TAX EARNINGS ON REFUNDS ON VEHICLES (3)	GRAND TOTAL EARNINGS (TAX AND TAX LAW ON VEHICLES (1))	DISPOSITION OF GRAND TOTAL EARNINGS		TAX RATE, CENTS PER GALLON	DATE OF CHANGE	NET GALLONS OF GASOLINE TAKED, AND USE BY MOTOR VEHICLE
						COLLECTION	CONSTRUCTION & MAINTENANCE STATE HIGHWAYS LOCAL ROADS			
ALABAMA	\$ 6,308,986	\$ 5,908,986	\$ 6,908,986	\$ 23,542	\$ 2,618,866	\$ (3) (8)	303,760		1/25	4
ARKANSAS	\$ 1,646,375	\$ 257,545	\$ 1,388,330	\$ -	\$ 1,041,297	\$ 768,139	584,036	(5)	6/19	4
CALIFORNIA	24,453,985	1,866,502	4,338,737	22,467,083	13,68,714	9,265,607	2,733,404		2	3
COLORADO	3,272,537	1,32,543	3,133,594	7,139,594	2,160,425	967,628			6/1	3
CONNECTICUT	3,056,906	3,054,906	\$ 42,552	\$ 3,097,428	3,097,428	3,097,428			2	2
DELAWARE	681,466	18,307	662,159	\$ (9)	662,158	5,153,400			3/24	2
FLORIDA	10,980,688	17,985,588	11,065,641	27,985	11,333,018	7,952,018			7/1	6
GEORGIA	7,061,109	\$ -	11,334	7,077,503	4,600	4,986,581	1,199,833		1/11	4
IDAHO	1,663,105	97,308	1,671,749	1,671,749	1,19,966	1,36,096	1,087,256	(14)	12/3,687	3
ILLINOIS	16,248,409	5,409,500	6,199,500	25,000	3,168,256	6,145,589			10/8	8/1
INDIANA	10,500,307	365,739	10,133,568	10,133,568	15,184	2,500,000	84,199		1/15	3
LOUISIANA	7,610,706	365,392	7,248,214	67,755	1,33,400	3,665,596			1/17	3
KANSAS	5,038,617	493,987	4,594,650	4,594,650	(18)	1,950,220	743,930		1/17	3
KENTUCKY	5,913,396	\$ -	5,913,396	11,700	5,901,696	3,024,056			1/17	2
Louisiana	3,024,056	55,500	3,034,056	3,034,056	2,268,933	2,271,381			1/20	2
MAINE	2,344,347	143,900	4,169,397	4,169,397	2,500	2,37,416			1/19,481	3
MARYLAND	4,314,297	143,186	4,165,397	4,165,397	14,280,564	43,797	9,409,87		1/17	2
MASSACHUSETTS	15,104,180	1,063,186	1,063,186	1,063,186	5,174,880	5,174,880	2,805,830	(8)	1/19,481	2
MICHIGAN	5,510,257	33,377	5,174,880	5,174,880	6,174,880	6,174,880	3,000,000		1/17	3
MINNESOTA	1,222	4,690,686	6,330,983	48,488	6,330,983	6,284,451	2,178,311	(23)	1/20,428	4
MISSOURI	6,449,955	118,572	6,449,955	118,572	1,455,598	1,455,598			1/17	2
MONTANA	1,601,022	165,223	1,601,022	1,601,022	1,56,598	1,56,598			1/16	3
NEBRASKA	3,683,118	20,359	3,654,913	3,654,913	8,013	3,686,365	2,235,912		1/20	2
NEW HAMPSHIRE	3,920,116	36,912	3,920,116	36,912	1,628,907	1,628,907	25,912		1/20	2
NEW JERSEY	1,251,199	22,592	1,251,199	1,251,199	4,036,900	16,125	25,000		1/20	2
NEW MEXICO	4,415,131	639,277	4,415,131	4,415,131	1,435,980	1,435,980	3,982,915		1/20	2
NEW YORK	1,111,500	1,415,192	1,415,192	1,415,192	1,746,217	1,746,217	9,975		1/20	2
North Carolina	1,247,297	8,796,682	8,796,682	8,796,682	2,247,298	(28)	6,444,311		1/20	2
North Dakota	1,671,133	298,668	1,276,565	958	1,276,565	26,000	1,100,000		1/20	2
OHIO	2,476,658	65,207	19,910,481	19,910,481	19,910,481	11,950,652	7,912,029		1/20	2
OKLAHOMA	1,224,275	26,120	7,197,956	7,197,956	(30)	4,989,357	2,399,919		1/20	2
OKLAHOMA	1,379,193	236,202	1,341,191	1,341,191	1,628,907	1,628,907	1,32,055		1/20	2
PENNSYLVANIA	17,296,333	17,296,333	17,296,333	17,296,333	1,729,333	1,729,333	3,467,810		1/20	2
Rhode Island	915,155	5,154	5,190,985	5,190,985	5,190,985	5,000	3,046,231	1,52,616	1/20	2
South Carolina	5,074,958	681,103	5,175,565	5,175,565	2,193,592	4,750	2,046,243	(18)	1/20	2
South Dakota	4,476,180	4,476,180	4,476,180	4,476,180	4,476,180	4,476,180	1,000,000		1/20	2
TENNESSEE	16,550,141	1,461,161	1,461,161	1,461,161	16,550,141	1,461,161	943,814		1/20	2
TEXAS	1,461,161	905,224	1,461,161	1,461,161	905,224	6,376	1,026,244		1/20	2
VERMONT	7,194,159	376,162	7,139,707	7,139,707	7,139,707	7,005,244	4,279,902		1/20	2
VIRGINIA	4,086,155	265,153	3,794,338	3,794,338	3,807,422	3,807,422	3,027,329		1/20	2
WASHINGTON	3,897,144	103,576	756,049	756,049	6,027,114	9,988	3,687,279	(37)	1/20	2
WEST VIRGINIA	6,271,738	244,624	756,049	756,049	1,414,794	1,414,794	2,752,982	(38)	1/20	2
WISCONSIN	756,049	1,155,103	1,155,103	1,155,103	1,414,794	1,414,794	3,687,279	(38)	1/20	2
W. Va. of Col.	7310.	-	-	-	259,339,813	128,038	26,8,265,351	499,913	1/20	2
TOTALS	-	-	-	-	196,966,903	196,966,903	65,440,161	10,046,456	1/20	2
NET TOTALS	-	-	-	-	-	-	-	-	1/20	2

NOTE 9:

1/18 IS THE NET TAX AFTER DEDUCTION OF REFUNDS FOR EXEMPTIONS ACCORDING TO LAW AND REPRESENTS THE
TAXES AVAILABLE FOR DISPOSAL; THE FIRST TWO COLUMNS SHOW ONLY THE PROCEDURE AND ARE NOT
TOTALED, BEING OF MINOR IMPORTANCE.

2/ REPORTED ON COSTS IN MANY STATES ARE PAID FROM OTHER STATE FUNDS AND WHEN AMOUNTS AND SOURCES ARE
ON STATE HIGHWAY BONDS, SERIES 9 ONLY.

3/ TENTATIVE DATA, AS ADJUSTMENTS ARE TO BE ADDED.

4/ INCLUDES \$21,537 ON HIGHWAY BONDS AND \$2,516,487 ON LOCAL ROAD BONDS.

5/ ESTIMATE, BASED ON RATES, AND AMOUNTS RECEIVED.

6/ EXCLUDES \$31,547 ON GASOLINE INSPECTION FEE FUND.

7/ APPROXIMATELY \$46,000 CHARGED TO STATE TREASURY.

8/ FOR FREE PUBLIC SCHOOL FUND \$16,126; FOR PERMANENT BUILDING FUND \$308,067; AND BALANCE OF \$16,140
IN STATE TREASURY.

9/ UNALLOCATED BALANCE.

10/ EARNINGS FOR LAST FIVE MONTHS OF YEAR ONLY.

11/ COUNTY BOND PAYMENTS INCLUDED IN LOCAL ROAD ALLOCATIONS.

12/ FOR CITY STREETS.

13/ APPROXIMATELY \$60,000 CHARGED TO STATE TREASURY.

14/ SPECIAL REFUNDS FOR NIGHTS OF WAY AND BRIDGES.

15/ FROM STATE GENERAL FUND.

16/ INCOME TO STATE FROM MOTOR VEHICLE FUND, \$5,000.

17/ PAYMENTS ON STATE ROAD BONDS CHARGED TO GASOLINE FUND; AMOUNT NOT STATED.

18/ RECEIPTS EXPENDED ON WASHINGTON STREETS FOR IMPROVEMENT AND REPAIRS.

19/ ESTIMATED CONSUMPTION BASED ON MOTOR VEHICLE REGISTRATION, 310,000,000 GALLONS.

20/ ALLOCATION OF FUND BY STATE.

21/ GENERAL STATE FUND.

22/ STATE APPROPRIATION OF \$5,700 FROM GENERAL REVENUE.

23/ RESERVE FOR REFUNDS.

24/ FOR FREE SCHOOL FUND.

25/ INCREASED TO 5 CENTS ON MARCH 19, 1928.

26/ FROM MOTOR VEHICLE FUND, \$5,000.

27/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

28/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

29/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

30/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

31/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

32/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

33/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

34/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

35/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

36/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

37/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

38/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

39/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

40/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

41/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

42/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

43/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

44/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

45/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

46/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

47/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

48/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

49/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

50/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

51/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

52/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

53/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

54/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

55/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

56/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

57/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

58/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

59/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

60/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

61/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

62/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

63/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

64/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

65/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

66/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

67/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

68/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

69/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

70/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

71/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

72/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

73/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

74/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

75/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

76/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

77/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

78/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

79/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

80/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

81/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

82/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

83/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

84/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

85/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

86/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

87/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

88/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

89/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

90/ RECEIPTS EXPENDED ON STATE HIGHWAY BONDS CHARGED TO GASOLINE FUND.

DUAL SCREENS INCREASE CAPACITY OF ASPHALT PAVING PLANT

COMPILED FROM A REPORT SUBMITTED BY R. H. TATLOW OF THE DIVISION
OF MANAGEMENT

(NOT FOR RELEASE)

A DUAL SCREEN, SHOWN IN THE ACCOMPANYING SKETCH, FOR IN-
CREASING THE CAPACITY OF A 3,000 POUND MADSEN ASPHALT PAVING
PLANT HAS PROVED HIGHLY SATISFACTORY ON CALIFORNIA FEDERAL-AID
PROJECT 184-A.

THE CUSTOMARY SCREEN DESIGN, FOR SEPARATING THE HOT
MINERAL AGGREGATE AT THE TOP OF THE BINS, CONSISTS OF A SINGLE
SET OF SCREENS. ALL THE AGGREGATE MUST PASS THROUGH THIS ONE
SCREEN AND CARE MUST BE TAKEN TO PREVENT OVERLOADING SO THAT
PORTIONS OF THE FINER AGGREGATES SHALL NOT BE CARRIED OVER INTO
THE BINS FOR THE COARSER MATERIAL. THIS MAKES IT NECESSARY TO
VARY THE MIXTURE OF THE MATERIAL SO AS TO MAINTAIN A UNIFORM
DENSITY OF THE PAVEMENT - A CONDITION REQUISITE TO A STABLE
AND EVEN SURFACE.

THE DUAL SCREENS, USED ON THIS PLANT, CONSIST ESSEN-
TIALY OF TWO ORDINARY SINGLE SCREENS MOUNTED SIDE BY SIDE AS
SHOWN IN THE ACCOMPANYING DIAGRAM. THE ADMISSION OF THE AGGRE-
GATES FROM THE ELEVATOR IS CONTROLLED BY A SWINGING GATE AT THE
JUNCTION OF TWO OUTLET CHUTES LEADING TO THE TWO SCREENS. THIS
SWINGING GATE MAY BE ADJUSTED SO AS TO DIVIDE THE MATERIAL IN
ANY DESIRED PROPORTION BETWEEN THE TWO SCREENS, OR TO VARY THE
LOAD SO THAT, IF NECESSARY, ALL THE AGGREGATE SHALL PASS THROUGH
ONE SCREEN.

THE POWER-DRIVEN 44-INCH GEAR ON THE END OF ONE SCREEN
MESHERS WITH A SIMILAR GEAR ON THE OTHER SCREEN. HAVING THE TWO
SCREENS REVOLVING IN OPPOSITE DIRECTIONS, SO THAT THE AGGREGATE
IS ROTATED AND DEPOSITED TOWARDS THE CENTER OF THE BINS, IS THE
MOST DESIRABLE ARRANGEMENT.

THESE DUAL SCREENS HAVE INCREASED THE CAPACITY, AND
HAVE DECREASED THE STORAGE SPACE, AS COMPARED WITH A SINGLE-
SCREEN PLANT.

“The first test of any system of government is whether it preserves the rights of the people.”

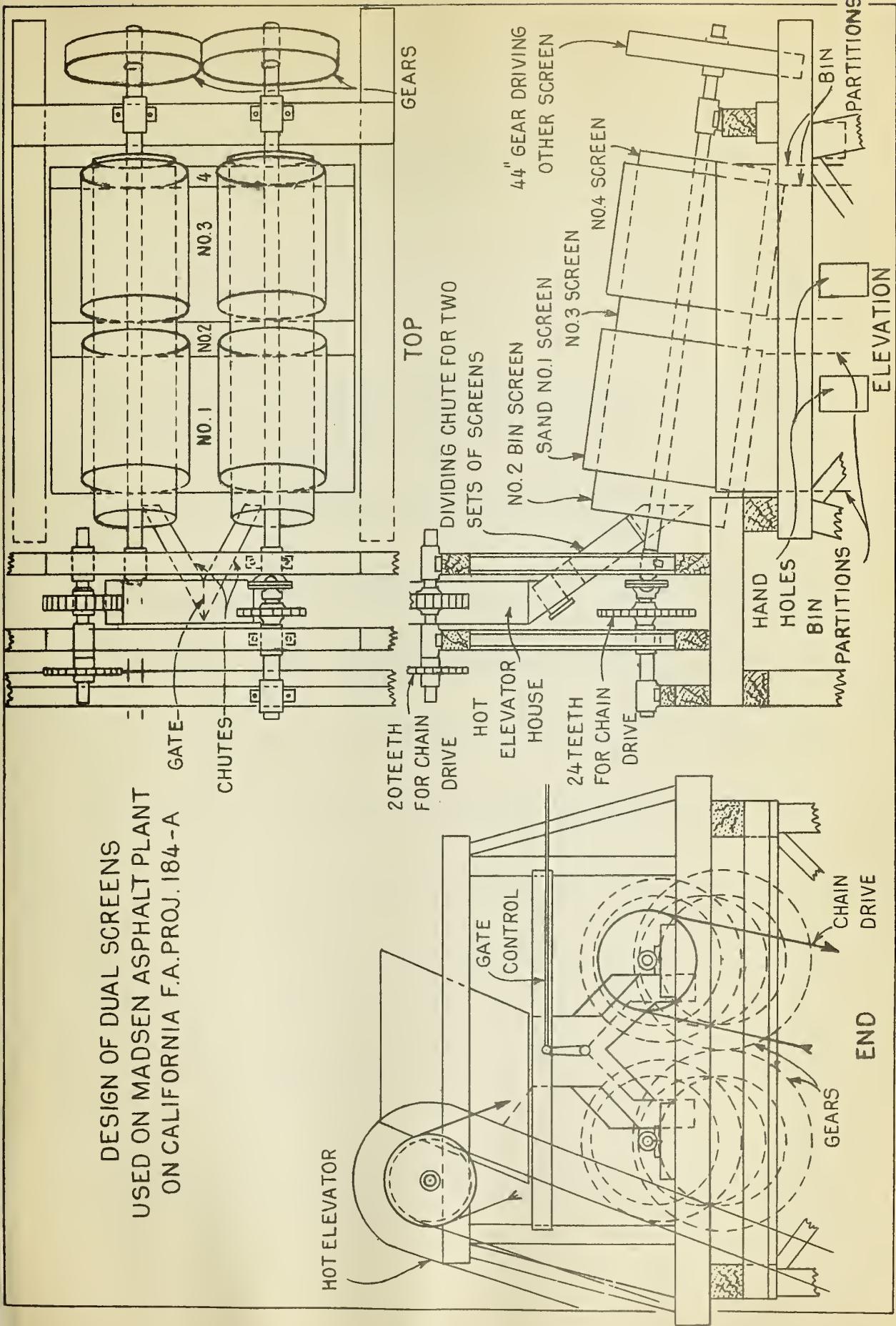
1. *Chlorophytum comosum* (L.) Willd. (syn. *Chlorophytum Topiarius* (L.) Willd.)
2. *Chlorophytum comosum* (L.) Willd. (syn. *Chlorophytum Topiarius* (L.) Willd.)
3. *Chlorophytum comosum* (L.) Willd. (syn. *Chlorophytum Topiarius* (L.) Willd.)
4. *Chlorophytum comosum* (L.) Willd. (syn. *Chlorophytum Topiarius* (L.) Willd.)
5. *Chlorophytum comosum* (L.) Willd. (syn. *Chlorophytum Topiarius* (L.) Willd.)

Digitized by srujanika@gmail.com

1970-1971 BALANCE SHEET AS OF MARCH 31, 1971
ASSETS
CASH AND CASH EQUIVALENTS \$ 1,000,000.00
INVESTMENT IN EQUITY SECURITIES 1,000,000.00
TOTAL ASSETS \$ 2,000,000.00

1995-02-01 16:00:15

DESIGN OF DUAL SCREENS
USED ON MADSEN ASPHALT PLANT
ON CALIFORNIA F.A. PROJ. 184-A



TRIVED FROM AMOUNT EARNED IN STATES HAVING GABOLINE TAX (ALLOWING FOR DEDUCTIONS DUE TO EXEMPTIONS)

(COMPILED FROM REPORTS OF STATE AUTHORITIES)

MONTTHLY GROSS LINE COMPUTATION (in thousands) AS USED BY MOTOR VEHICLES, 1926 (20 HALF YEAR)
DERIVED FROM AMOUNT EARNED IN STATES HAVING GASOLINE TAX (ALLOWING FOR DEDUCTIONS DUE TO EXEMPTIONS)

(COMPILED FROM REPORTS OF STATE AUTHORITIES)

		1st Quarter		2d Quarter		3d Quarter		4th Quarter		1st Half Year		2d Half Year		3d Half Year		4th Half Year		Grand Total U. S.	
NEW ENGLAND	(No Tax)	802,653,960:	796,835,479:	763,487,081:	2,361,986,510:	706,813,480:	688,849,777:	611,008,863:	1,975,672,120:	11,437,866,630:	7,483,983,560:	GRAND TOTAL U. S.							
MASSACHUSETTS	(No Tax)	39,222,113:	39,137,265:	34,625,490:	112,984,868:	30,786,468:	26,976,548:	20,323,865:	78,086,871:	191,071,729:	511,832,501:	NEW ENGLAND							
CONNECTICUT	(No Tax)	15,046,806:	14,401,657:	13,317,648:	42,765,112:	12,365,613:	11,890,265:	9,802,160:	34,058,038:	76,824,151:	134,468,807:	CONNECTICUT							
MAINE	(No Tax)	9,193,870:	9,494,321:	26,890,433:	6,860,336:	4,157,171:	4,784,171:	4,158,162:	41,582,326:	41,971,623:	51,090,651:	MAINE							
RHODE ISLAND	(No Tax)	5,896,938:	5,352,377:	4,813,033:	16,901,318:	4,587,567:	4,011,377:	3,930,177:	12,819,056:	28,720,374:	51,189,641:	RHODE ISLAND							
NEW HAMPSHIRE	(No Tax)	5,380,986:	5,393,188:	4,796,542:	15,930,716:	3,885,561:	3,186,055:	2,850,922:	9,331,597:	25,262,403:	54,429,100:	NEW HAMPSHIRE							
VERMONT	(No Tax)	3,304,513:	4,065,708:	3,596,097:	11,596,279:	3,091,502:	2,431,443:	1,666,941:	7,095,796:	19,582,065:	27,554,594:	VERMONT							
MIDDLE ATLANTIC	(No Tax)	69,837,902:	58,937,902:	56,837,903:	176,513,707:	49,031,585:	49,031,585:	49,031,585:	147,084,755:	343,606,652:	588,379,021:	MIDDLE ATLANTIC							
NEW YORK	(No Tax)	68,837,902:	58,837,902:	56,837,903:	176,613,707:	48,031,585:	48,031,585:	49,031,585:	147,084,755:	322,628,462:	588,379,021:	NEW YORK							
PENNSYLVANIA	(No Tax)	68,837,902:	58,837,902:	56,837,903:	176,613,707:	48,031,585:	48,031,585:	49,031,585:	147,084,755:	322,628,462:	588,379,021:	PENNSYLVANIA							
DELAWARE	(No Tax)											DELAWARE							
EAST NORTH CENTRAL	(No Tax)	187,047,760:	186,140,923:	170,478,087:	543,667,600:	158,563,387:	142,897,464:	122,406,406:	423,946,266:	987,513,666:	1,726,505:	EAST NORTH CENTRAL							
ILLINOIS	(No Tax)	70,123,687:	67,926,411:	64,481,360:	208,541,381:	58,908,925:	66,712,503:	48,846,472:	163,370,800:	366,912,191:	682,363,296:	ILLINOIS							
MICHIGAN	(No Tax)	64,301,433:	56,454,356:	50,187,821:	159,813,211:	45,621,624:	24,896,501:	21,863,239:	125,861,704:	245,071,511:	504,088,314:	MICHIGAN							
INDIANA	(No Tax)	30,764,799:	31,453,135:	28,314,030:	90,556,584:	27,621,824:	13,397,750:	11,006,865:	12,310,343:	164,927,325:	289,056,266:	INDIANA							
ELGIN	(No Tax)	31,832,861:	31,306,758:	27,536,436:	90,676,034:	26,048,445:	19,632,126:	15,018,888:	60,689,386:	151,345,436:	280,490,262:	ELGIN							
MIDWEST	(No Tax)	144,466,267:	134,466,728:	128,265,807:	405,956,588:	112,753,383:	98,759,478:	85,646,194:	297,128,662:	703,123,662:	2,016,426,821:	MIDWEST							
MISSOURI	(No Tax)	29,158,860:	29,065,813:	25,394,185:	86,523,890:	23,961,784:	22,737,418:	21,560,162:	88,209,354:	161,720,552:	283,057,270:	MISSOURI							
OKLAHOMA	(No Tax)	26,265,787:	26,691,173:	22,614,965:	74,531,958:	22,654,438:	18,876,248:	16,672,813:	57,903,207:	132,441,186:	243,121,370:	OKLAHOMA							
KANSAS	(No Tax)	27,164,760:	26,581,900:	24,847,060:	71,016,550:	23,016,550:	19,396,950:	14,575,138:	55,568,352:	134,827,351:	240,234,385:	KANSAS							
NEBRASKA	(No Tax)	26,322,760:	23,434,680:	21,884,500:	71,321,000:	16,636,500:	18,407,743:	16,515,800:	57,582,743:	123,193,433:	215,169,393:	NEBRASKA							
NEVADA	(No Tax)	15,654,560:	16,046,650:	13,880,500:	45,661,560:	13,397,750:	11,762,750:	11,006,865:	10,503,100:	40,829,762:	127,688,452:	NEVADA							
NORTH DAKOTA	(No Tax)	5,830,178:	5,786,900:	3,328,680:	26,252,300:	3,418,800:	832,000:	4,800,940:	17,093,910:	38,459,586:	64,168,588:	NORTH DAKOTA							
SOUTH ATLANTIC	(No Tax)	103,307,492:	101,482,161:	101,592,277:	308,381,900:	96,211,270:	97,010,062:	97,010,062:	34,449,701:	43,487,701:	509,882,701:	SOUTH ATLANTIC							
GEORGIA (Q)	(No Tax)	14,873,337:	14,873,337:	14,873,337:	44,610,011:	14,525,659:	14,525,658:	14,525,658:	43,487,701:	88,196,988:	161,615,256:	GEORGIA							
North Carolina	(No Tax)	16,611,428:	16,496,188:	18,194,961:	40,580,936:	12,146,587:	11,924,897:	11,650,627:	53,359,079:	104,661,621:	136,814,061:	North Carolina							
VIRGINIA	(No Tax)	13,546,939:	13,665,054:	13,771,943:	40,580,936:	12,146,587:	11,924,897:	11,650,627:	53,359,079:	104,661,621:	136,814,061:	VIRGINIA							
SOUTH CAROLINA	(No Tax)	8,197,500:	8,017,360:	8,017,360:	21,298,760:	8,198,631:	8,198,631:	7,733,240:	7,661,512:	27,576,357:	47,948,772:	SOUTH CAROLINA							
WEST VIRGINIA	(No Tax)	9,664,766:	9,321,981:	9,198,631:	21,298,760:	8,198,631:	8,198,631:	7,733,240:	7,661,512:	27,576,357:	47,948,772:	WEST VIRGINIA							
MARYLAND	(No Tax)	11,775,618:	11,231,698:	11,110,667:	34,061,894:	10,246,190:	9,761,171:	8,365,228:	28,980,716:	63,032,707:	114,658,772:	MARYLAND							
FLORIDA	(No Tax)	22,072,196:	20,424,976:	20,424,976:	63,471,257:	23,371,374:	23,371,374:	21,411,450:	13,086,119:	13,455,035:	285,778,156:	FLORIDA							
DELAWARE	(No Tax)	4,779,088:	4,549,886:	4,434,903:	13,783,647:	4,516,080:	4,379,241:	4,191,386:	8,882,965:	10,661,714:	50,755,671:	DELAWARE							
EAST SOUTH CENTRAL	(No Tax)	46,056,187:	44,674,218:	44,647,900:	134,575,105:	43,230,644:	40,064,478:	38,672,484:	12,385,581:	12,385,581:	455,433,811:	EAST SOUTH CENTRAL							
KENTUCKY	(No Tax)	10,982,841:	10,751,708:	10,487,437:	44,610,011:	14,525,659:	14,525,658:	14,525,658:	43,487,701:	87,123,534:	103,477,682:	KENTUCKY							
ALABAMA	(No Tax)	12,304,128:	11,960,670:	11,487,275:	40,731,473:	11,531,427:	10,910,443:	10,910,443:	33,443,483:	63,177,338:	128,417,463:	ALABAMA							
TENNESSEE	(No Tax)	11,391,117:	11,788,356:	13,424,131:	36,515,804:	12,889,986:	11,681,178:	11,458,386:	36,778,386:	72,292,034:	128,417,463:	TENNESSEE							
MISSISSIPPI	(No Tax)	10,368,301:	10,143,084:	9,815,817:	30,387,202:	9,788,984:	8,882,965:	8,882,965:	9,883,400:	27,515,019:	57,942,821:	MISSISSIPPI							
WEST SOUTH CENTRAL	(No Tax)	33,325,983:	33,325,906:	91,401,561:	272,364,157:	86,068,989:	82,467,595:	80,068,989:	44,891,181:	136,671,199:	287,156,653:	WEST SOUTH CENTRAL							
OKLAHOMA	(No Tax)	30,942,623:	30,542,623:	45,419,131:	24,429,426:	11,292,467:	12,297,260:	11,725,410:	11,921,988:	54,665,966:	522,688,935:	OKLAHOMA							
LOUISIANA	(No Tax)	12,140,430:	12,140,430:	12,140,430:	45,153,750:	12,323,484:	16,692,467:	12,297,260:	11,725,410:	11,921,988:	12,659,377:	LOUISIANA							
ARKANSAS	(No Tax)	12,178,390:	12,149,593:	12,149,593:	45,153,750:	12,323,484:	16,692,467:	12,297,260:	11,725,410:	11,921,988:	12,659,377:	ARKANSAS							
MONTANA	(No Tax)	7,686,580:	9,767,925:	9,910,975:	25,257,350:	9,553,325:	7,902,250:	7,902,250:	7,004,919:	23,780,494:	49,017,644:	MONTANA							
COLORADO	(No Tax)	29,675,944:	32,404,904:	33,159,430:	95,240,278:	30,065,093:	27,348,679:	24,686,540:	82,101,288:	117,341,505:	312,396,344:	COLORADO							
COLORADO	(No Tax)	4,513,730:	10,982,433:	11,811,808:	31,665,946:	11,280,848:	9,586,733:	9,586,733:	3,151,676:	10,547,066:	44,098,470:	COLORADO							
MONTANA (Q)	(No Tax)	4,513,730:	4,513,730:	13,541,250:	3,515,650:	3,515,650:	3,515,650:	3,515,650:	3,515,650:	12,310,340:	43,638,576:	MONTANA							
UTAH	(No Tax)	4,609,046:	4,644,928:	4,644,928:	12,819,624:	12,819,624:	2,918,393:	2,918,393:	2,538,152:	9,643,955:	35,943,117:	UTAH							
IDAHO	(No Tax)	4,388,105:	4,588,760:	3,942,620:	12,819,624:	12,819,624:	3,500,635:	2,918,393:	2,207,108:	8,622,242:	21,717,561:	IDAHO							
NEW MEXICO	(No Tax)	2,188,133:	2,535,739:	2,535,739:	7,308,568:	2,448,384:	2,346,484:	2,346,484:	2,346,484:	7,172,561:	14,481,111:	NEW MEXICO							
ARIZONA	(No Tax)	2,185,732:	2,774,452:	2,846,176:	8,466,164:	2,986,164:	3,014,140:	3,014,140:	3,021,039:	8,931,343:	17,387,031:	ARIZONA							
NEVADA	(No Tax)	2,189,198:	2,189,198:	2,189,198:	7,860,533:	2,301,384:	2,133,308:	860,416:	1,667,211:	6,091,885:	13,962,418:	NEVADA							
PACIFIC	(No Tax)	1,06,033,712:	106,388,593:	102,840,788:	314,283,031:	93,122,033:	93,122,033:	93,122,033:	91,206,834:	280,912,183:	506,175,276:	PACIFIC							
CALIFORNIA (Q)	(No Tax)	7,483,227:	7,483,227:	7,483,227:	20,569,284:	7,016,560:	7,016,560:	7,016,560:	7,016,560:	210,491,781:	45,071,081:	CALIFORNIA							
WASHINGTON	(No Tax)	17,895,124:	17,895,124:	17,895,124:	51,265,722:	16,265,722:	16,265,722:	16,265,722:	16,265,722:	42,702,881:	85,071,636:	WASHINGTON							
OREGON	(No Tax)	13,271,321:	13,321,333:	11,730,930:	36,388,564:	10,654,454:	9,351,021:	7,002,051:	7,002,051:	27,127,591:	65,135,135:	OREGON							

FOR REMARKS AND NOTES SEE TABLE ONE

TRIPLE EARTH-SLIDE-CONTROL METHOD TO BE USED
ON OHIO FEDERAL-AID PROJECT

CONTRIBUTED BY D. T. BROWN OF THE DIVISION OF DESIGN

(NOT FOR RELEASE)

A COMBINATION OF 3 METHODS FOR CONTROLLING AN EARTH SLIDE WILL BE USED IN THE CONSTRUCTION OF OHIO FEDERAL-AID PROJECT 534-A. AS SHOWN IN THE ATTACHED SKETCH, A RETAINING WALL WILL BE USED TO PREVENT THE EARTH FOUNDATION OF THE ROADWAY FROM SLIDING OVER UPON THE RAILROAD BELOW. ABOVE THE ROADWAY THREE ROWS OF PILING FORMED BY STEEL WELL-CASING FILLED WITH CONCRETE WILL BE SUNK THROUGH THE SLIDING LAYER INTO THE SOLID ROCK BENEATH. TO INSURE THE DRAINAGE OF THE IMPERVIOUS ROCK SURFACE UPON WHICH THE SLIDING MATERIAL MOVES, A 24-INCH VITRIFIED CLAY PIPE, FEED AT INTERVALS WITH 12-INCH PERFORATED CORRUGATED IRON PIPE LATERALS, IS TO BE PLACED THE FULL LENGTH OF THE SLIDE FROM THE TOP TO THE FOOT OF THE SLOPE.

THE CONCRETE PILES ARE TO BE CONSTRUCTED IN PLACE. FIRST, HOLES WILL BE DRILLED IN THE PROPER LOCATION WITH A WELL DRILL, EXTENDING THROUGH THE EARTH SLIDE FOR 6 FEET INTO THE SOLID ROCK. STEEL-CASING PIPE WILL THEN BE DRIVEN INTO THE HOLES AND THREE ROUND-STEEL REINFORCING BARS WILL BE INSERTED IN THE PIPE WHICH WILL BE TAMPED FULL OF CONCRETE. THE COST OF THE PILES, IN PLACE, IS ESTIMATED AT \$2.00 PER LINEAL FOOT. THE RETAINING WALL AND DRAIN PIPES INVOLVE NO UNUSUAL CONSTRUCTION FEATURES.

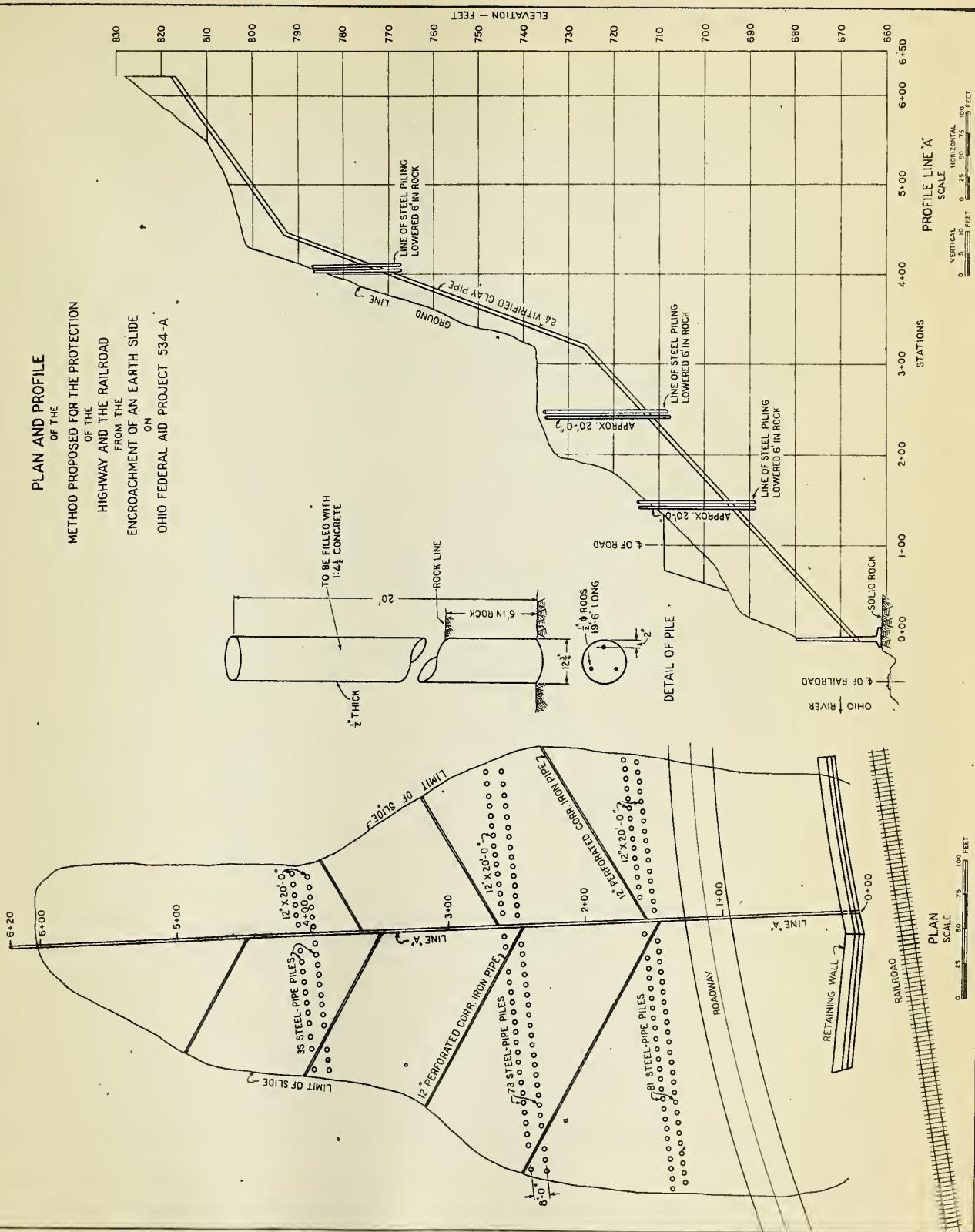
THE ESTIMATED COST OF THIS SLIDE-CONTROL FEATURE IS AN INDICATION OF THE VALUE PLACED ON SLIDE CONTROL, IN THIS REGION WHERE EARTH SLIDES ARE PREVALENT. THE COST OF GRADING AND DRAINING THE PROJECT IS ESTIMATED AT \$76,000 PER MILE, OR \$380,000 FOR THE 4.9 MILES. THE ESTIMATED COST OF CONSTRUCTION OF THE SLIDE-CONTROL METHODS, ILLUSTRATED IN THE ATTACHED SKETCH, FOLLOWS:

ANSWER TO THE QUESTION OF THE DAY

PLAN AND PROFILE

U. S. GOVERNMENT PRINTING OFFICE, 1913, 12 M.

METHOD PROPOSED FOR THE PROTECTION
OF THE
HIGHWAY AND THE RAILROAD
FROM THE
ENCROACHMENT OF AN EARTH SLIDE
ON
OHIO FEDERAL AID PROJECT 534-A.



DRAIN PIPE

620 LINEAL FEET OF 24-INCH VITRIFIED CLAY PIPE, IN PLACE, AT \$5.00 PER LINEAL FOOT - - -	\$3,100
890 LINEAL FEET OF 12-INCH PERFORATED CORRU- GATED IRON PIPE, IN PLACE, AT \$3.00 PER LINEAL FOOT - - - - -	2,670

CONCRETE PILING AND RETAINING WALL

3,780 LINEAL FEET OF 12-INCH STEEL-PIPE PILING, IN PLACE, AT \$2.00 PER LINEAL FOOT - - -	7,560
52,400 POUNDS OF STEEL REINFORCEMENT AT \$.05 PER POUND - - - - -	2,620
514 CUBIC YARDS OF 1:5-1/2 CONCRETE, IN PLACE, AT \$17.00 PER CUBIC YARD - - - - -	8,738
336 SQUARE FEET OF 1/2-INCH PREMOULDED EXPAN- SION JOINT MATERIAL AT \$.25 - - - - -	84
2,040 CUBIC YARDS OF EXCAVATION INCLUDING BACK- FILL AT \$1.50 PER CUBIC YARD - - - - -	<u>3,060</u>
TOTAL	\$27,832

LIP CURB FOR CONCRETE PAVEMENTS SUBMITTED BY 4 STATES

CONTRIBUTED BY ST. CLAIR T. THOMAS OF THE DIVISION OF DESIGN

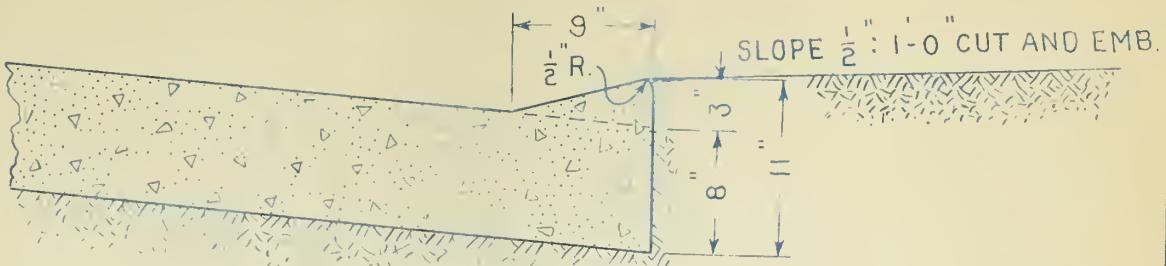
(NOT FOR RELEASE)

LIP CURBS, TO PROTECT THE EARTH SHOULDERS OF CONCRETE PAVEMENTS FROM EROSION BY THE RUN OFF OF RAIN WATER, HAVE BEEN INCLUDED IN DESIGNS SUBMITTED FOR FEDERAL-AID PROJECTS, BY FOUR STATES - GEORGIA, ILLINOIS, IOWA, AND MINNESOTA, AS SHOWN IN THE ATTACHED CROSS SECTIONS. THE LIP CURB, OR EDGING, CONSTRUCTED ON THE TOP OF THE PAVEMENT, SERVES THE PURPOSE OF CARRYING THE RAIN WATER TO THE NEAREST OFFTAKE. IT DIFFERS FROM THE INTEGRAL CURB, OR THE CURB AND GUTTER, IN THAT IT IS SUITABLE ONLY FOR NORMAL RAINFALLS, AND THE HEIGHT - 2 TO 3 INCHES IN 8 TO 12 INCHES - IS NOT SUFFICIENT TO PREVENT TRAFFIC FROM RUNNING OVER THE EDGE OF THE PAVEMENT.

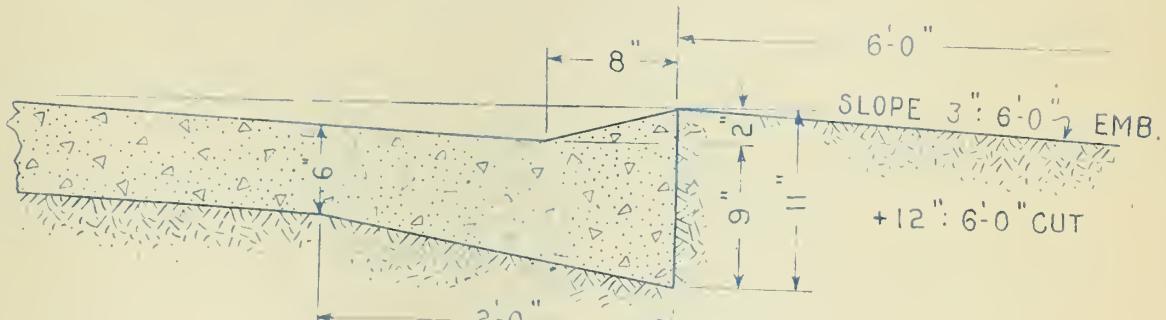
THE NECESSITY FOR LIP CURB IS DETERMINED BY THE CHARACTER OF THE SHOULDER MATERIAL AND THE GRADE OF THE PAVEMENT. IT IS USUALLY NOT REQUIRED IN THE HEAVIER SOILS, SUCH AS CLAY, WHICH DO NOT ERODE AS READILY AS SILT OR SAND. IOWA, WHERE THE LOESS SOIL ERODES READILY, WAS ONE OF THE FIRST STATES TO SUBMIT LIP CURB ON A FEDERAL-AID PROJECT.

THE LIP CURB IS CONSTRUCTED IMMEDIATELY AFTER THE PAVEMENT PROPER HAS BEEN FINISHED. FIRST THE ELEVATION OF THE TOP OF THE SIDE FORMS IS RAISED THE DESIRED AMOUNT, AND THEN THE EXTRA CONCRETE OF THE SAME MIX AS THE PAVEMENT IS SPREAD NEXT TO THE FORM, AND FINISHED TO THE PROPER CROSS SECTION WITH A FLOAT. IN GEORGIA THE CORNER IS ROUNDED WITH AN EDGING TOOL. SUITABLE OFFTAKES ARE BUILT, AT RIGHT ANGLES TO THE CENTER LINE OF THE ROADWAY WHERE THE GRADE IS NOT OVER 1-1/2 PER CENT, AND AT AN ANGLE OF 45 DEGREES WHEN THE GRADE EXCEEDS 1-1/2 PER CENT.

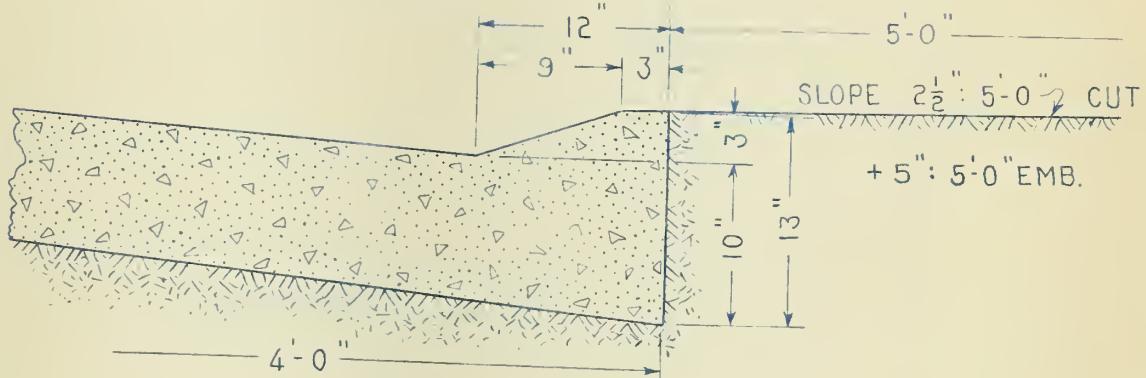
IN BOTH ILLINOIS AND GEORGIA THE UNIT FOR PAYMENT IS THE LINEAL FOOT OF LIP CURB. ON ONE PROJECT IN ILLINOIS THE PRICE WAS 10 CENTS, AND ON A JOB IN GEORGIA THE COST WAS 4 CENTS A LINEAL FOOT. IN MINNESOTA AND IOWA THE COST IS INCLUDED IN THE UNIT PRICE BID FOR THE CONCRETE PAVEMENT.



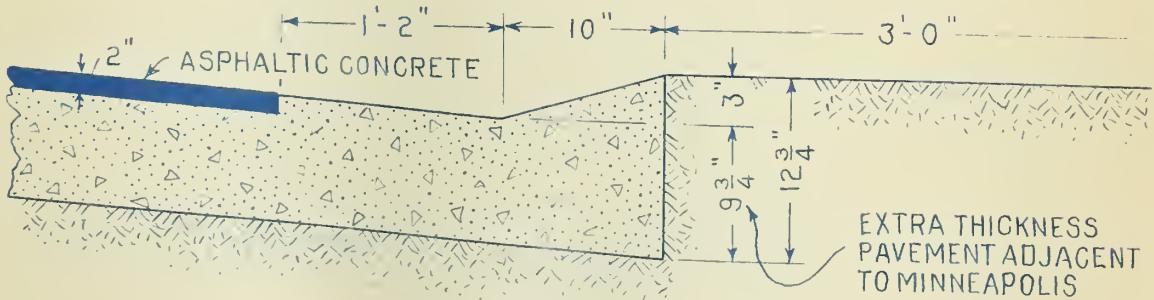
GEORGIA



ILLINOIS



IOWA



MINNESOTA

EXTRA THICKNESS
PAVEMENT ADJACENT
TO MINNEAPOLIS

DESIGNS OF LIP CURBS FOR CONCRETE PAVEMENTS
SUBMITTED BY GEORGIA, ILLINOIS, IOWA AND MINNESOTA

PROGRAM OF ESTIMATED STATE AND LOCAL HIGHWAY AND BRIDGE EXPENDITURES
FOR CALENDAR YEAR - 1928

(AS REPORTED BY STATE AUTHORITIES)

GRAND TOTAL		PROBABLE EXPENDITURES BY STATE HIGHWAY DEPARTMENTS		MAINTENANCE (1)		HIGHWAY DEPARTMENTS		ON ROADS AND BRIDGES BY STATE HIGHWAY DEPARTMENTS		ESTIMATED ROAD MILEAGE TO BE BUILT		MILES	
STATE	EXPENDITURE (2)	TOTAL	CONSTRUCTION EXPENDITURES	ROAD	BRIDGES	ROAD	BRIDGES	ROAD	BRIDGES	ROAD	BRIDGES	ROAD	BRIDGES
STATE AND LOCAL ROADS	STATE ROAD	ROAD	BRIDGES	ROAD	BRIDGES	ROAD	BRIDGES	ROAD	BRIDGES	ROAD	BRIDGES	ROAD	BRIDGES
LOCAL ROADS	EXPENDITURE (3)	ROAD	BRIDGES	ROAD	BRIDGES	ROAD	BRIDGES	ROAD	BRIDGES	ROAD	BRIDGES	ROAD	BRIDGES
ALABAMA	\$ 26,400,000	\$ 115,400,000	\$ 14,000,000	\$ 12,000,000	\$ 2,000,000	\$ 1,265,000	\$ 1,265,000	\$ 1,000,000	\$ 800	300	300	200	3,400
ARIZONA	\$ 6,419,216	\$ 11,172,287	\$ 3,297,348	\$ 2,492,773	\$ 814,876	\$ 1,862	\$ 23,022	\$ 760,065	\$ 1,036,988	\$ 241	\$ 1,036,988	\$ 14	1,620
ARKANSAS	\$ 33,500,000	\$ 10,500,000	\$ 28,000,000	\$ 1,000,000	\$ 6,000,000	\$ 2,000,000	\$ 2,000,000	\$ 1,000,000	\$ 1,000,000	\$ 2,540	\$ 700	\$ 1,800	40
CALIFORNIA	\$ 78,330,000	\$ 24,630,000	\$ 17,450,000	\$ 16,000,000	\$ 1,450,000	\$ 4,880,000	\$ 2,600,000	\$ 54,000,000	\$ 1,111	\$ 510	\$ 100	144	6,364
COLORADO	\$ 11,170,500	\$ 1,170,500	\$ 6,539,000	\$ 1,000,000	\$ 539,000	\$ 1,000	\$ 1,000	\$ 21,150	\$ 3,000,000	\$ 355	\$ 100	\$ 200	3,067
CONNECTICUT	\$ (4)	\$ 2,120,000	\$ 1,800,000	\$ 1,600,000	\$ 200,000	\$ 196,000	\$ 196,000	\$ 1,000	\$ 1,000	\$ 50	\$ 50	\$ 5	5
DELAWARE	\$ 28,150,000	\$ 11,463,385	\$ 11,184,047	\$ 6,684,047	\$ 2,600,000	\$ 2,000,000	\$ 2,000,000	\$ 1,400,000	\$ 1,469,338	\$ 355	\$ 100	\$ 200	2,786
FLORIDA	\$ 28,150,000	\$ 11,450,000	\$ 10,765,000	\$ 10,265,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 610	\$ 130	\$ 220	6,729
GEORGIA	\$ 7,000,000	\$ 4,500,000	\$ 3,360,000	\$ 3,000,000	\$ 300,000	\$ 700,000	\$ 700,000	\$ 2,000,000	\$ 2,000,000	\$ 626	\$ 200	\$ 600	2,260
IDAHO	\$ 44,900,000	\$ 44,900,000	\$ 40,000,000	\$ 16,150,000	\$ 4,000,000	\$ 2,213,467	\$ 2,213,467	\$ 1,900,000	\$ 1,900,000	\$ 600	\$ 400	\$ 50	6,775
ILLINOIS	\$ 42,110,000	\$ 14,478,000	\$ 10,753,407	\$ 8,650,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 22,132,600	\$ 355	\$ 421	281
INDIANA	\$ 52,500,000	\$ 13,550,000	\$ 28,000,000	\$ 15,000,000	\$ 1,500,000	\$ 2,000,000	\$ 2,000,000	\$ 1,500,000	\$ 1,500,000	\$ 1,000	\$ 1,000	\$ 50	4,845
IAWA	\$ 25,680,000	\$ 11,426,000	\$ 11,500,000	\$ 10,350,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,500,000	\$ 1,000	\$ 500	7,078
KANSAS	\$ 18,280,000	\$ 11,000,000	\$ 10,000,000	\$ 8,500,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	8,600
KENTUCKY	\$ 16,000,000	\$ 11,000,000	\$ 6,700,000	\$ 5,700,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	3,400
Louisiana	\$ 12,275,000	\$ 8,575,000	\$ 6,250,000	\$ 5,350,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	6,000
MAINE	\$ 11,790,000	\$ 8,702,000	\$ 4,030,000	\$ 2,210,000	\$ 880,000	\$ 900,000	\$ 900,000	\$ 1,975,000	\$ 1,975,000	\$ 450,000	\$ 450,000	\$ 450,000	4,930
MARYLAND	\$ 13,790,000	\$ 23,650,000	\$ 3,500,000	\$ 2,450,000	\$ 3,000,000	\$ 5,300,000	\$ 5,300,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	2,685
MASSACHUSETTS	\$ 53,630,000	\$ 23,650,000	\$ 17,000,000	\$ 14,000,000	\$ 3,000,000	\$ 5,350,000	\$ 5,350,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	7,355
MICHIGAN	\$ 32,275,000	\$ 14,775,000	\$ 9,800,000	\$ 8,800,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 100	6,936
MINNESOTA	\$ 6,675,000	\$ 5,175,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 100	6,000
MISSISSIPPI	\$ 436,041	\$ 28,742,900	\$ 18,742,900	\$ 14,888,900	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	4,300
Montana	\$ 9,985,000	\$ 4,855,000	\$ 3,760,000	\$ 3,140,000	\$ 620,000	\$ 620,000	\$ 620,000	\$ 1,470,000	\$ 1,470,000	\$ 555,000	\$ 555,000	\$ 555,000	1,500
NEBRASKA	\$ 14,350,000	\$ 4,350,000	\$ 2,000,000	\$ 2,000,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 2,280,000	\$ 2,280,000	\$ 200,000	\$ 200,000	\$ 200,000	6,300
NEVADA	\$ 2,259,038	\$ 1,709,039	\$ 1,138,118	\$ 1,078,118	\$ 60,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 375,921	\$ 195,000	\$ 195,000	1,465
NEW HAMPSHIRE	\$ 11,865,000	\$ 8,665,000	\$ 2,415,000	\$ 2,150,000	\$ 100,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 375,921	\$ 195,000	\$ 195,000	2,000
NEW JERSEY	\$ 53,728,000	\$ 33,728,000	\$ 28,555,200	\$ 28,555,200	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 3,122,800	\$ 20,000,000	\$ 1,100	3,900
NEW MEXICO	\$ 5,685,000	\$ 5,535,000	\$ 3,700,000	\$ 2,600,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	5,041
NEW YORK	\$ 134,688,713	\$ 94,688,713	\$ 86,188,713	\$ 81,188,713	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 475,000	\$ 300	\$ 350	1,188
North Dakota	\$ 42,300,000	\$ 21,800,000	\$ 22,100,000	\$ 19,600,000	\$ 2,500,000	\$ 2,000,000	\$ 2,000,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	6,797
OHIO	\$ 68,200,000	\$ 32,263,000	\$ 22,700,000	\$ 21,700,000	\$ 1,913,350	\$ 673,530	\$ 673,530	\$ 237,982	\$ 237,982	\$ 1,000	\$ 1,000	\$ 100	3,323
OKLAHOMA	\$ 22,000,000	\$ 11,250,000	\$ 9,000,000	\$ 7,275,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 900	\$ 900	\$ 900	10,000
OREGON	\$ 14,038,000	\$ 7,000,000	\$ 2,600,000	\$ 2,600,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	6,000
PENNSYLVANIA	\$ 91,093,551	\$ 61,100,000	\$ 26,000,000	\$ 16,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 100	3,260
Rhode Island	\$ 17,100,000	\$ 6,160,000	\$ 5,100,000	\$ 1,600,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 100	12,055
South Dakota	\$ 19,500,000	\$ 9,500,000	\$ 4,000,000	\$ 2,450,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	4,400
TENNESSEE	\$ 39,078,000	\$ 24,074,000	\$ 22,650,000	\$ 10,000,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	3,300
TEXAS	\$ 3,825,000	\$ 2,625,000	\$ 1,550,000	\$ 1,475,000	\$ 275,000	\$ 275,000	\$ 275,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	1,155
VERMONT	\$ 4,502,000	\$ 3,520,000	\$ 1,500,000	\$ 1,500,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	4,400
WISCONSIN	\$ 22,000,000	\$ 12,000,000	\$ 10,600,000	\$ 9,100,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	5,245
WYOMING	\$ 3,656,000	\$ 2,756,000	\$ 1,860,000	\$ 1,460,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 100	3,168
TOTALS (12)													
REMARKS:-	ROAD BOND PAYMENTS EXCLUDED IN ABOVE EXPENDITURES. THE ESTIMATES ARE GENERALLY CONSERVATIVE.												
NOTES:-	(1) STATES REPORTING RECONSTRUCTION OF ROAD COSTS UNDER MAINTENANCE ARE SO SHOWN HERE.												
	(2) WHERE NO ENTRY IS SHOWN, OVERHEAD IS INCLUDED IN CONSTRUCTION AND MAINTENANCE.												
	(3) INCLUDES 90% EARTH IMPROVED MILEAGE.												
	(4) NO ROAD PROGRAM ESTIMATES AVAILABLE.												
	(5) CARRIES ON DENNING'S EXISTING RATES.												
	(6) INCLUDED IN ROAD CONSTRUCTION.												
	(7) ESTIMATES BASED ON 956 ROAD MILES OF TURNWAYS ARE MAINTAINED IN COOPERATION WITH TOWNS.												
	(8) ALSO 1,500,000 FOR REPLACEMENTS DUE TO 1927 FLOOD.												
	(9) INCLUDES 9% ROAD PAYMENT MILEAGE.												
	(10) NO MILEAGE REPORTED, BUT 5% OF CONSTRUCTION EXPENDITURES TO BE ON HARD PAVEMENTS AND 25% ON INTERMEDIATE GRADE SURFACING.												
	(11) NO MILEAGE REPORTED, BUT 5% OF CONSTRUCTION EXPENDITURES TO BE ON HARD PAVEMENTS AND 25% ON INTERMEDIATE GRADE SURFACING.												
	(12) NO TOTALS SHOWN, ON ACCOUNT OF OMISION OF ONE STATE.												
	TOTALS												

PROBLEMS

ROAD PAYMENTS EXCLUDED IN ABOVE EXPENDITURES.

THE ESTIMATES ARE GENERALLY CONSERVATIVE.

STATES REPORTING EXPENDITURES

ON ROADS AND BRIDGES

BY STATE HIGHWAY DEPARTMENTS

OF ROAD

MAINTAINING

HIGHWAY

DEPARTMENTS

BY STATE HIGHWAY DEPARTMENTS

OF ROAD

MAINTAINING

HIGHWAY

DEPARTMENTS

BY STATE HIGHWAY DEPARTMENTS

OF ROAD

MAINTAINING

HIGHWAY

DEPARTMENTS

BY STATE HIGHWAY DEPARTMENTS

OF ROAD

MAINTAINING

HIGHWAY

DEPARTMENTS

BY STATE HIGHWAY DEPARTMENTS

OF ROAD

MAINTAINING

HIGHWAY

DEPARTMENTS

BY STATE HIGHWAY DEPARTMENTS

OF ROAD

MAINTAINING

HIGHWAY

DEPARTMENTS

BY STATE HIGHWAY DEPARTMENTS

OF ROAD

MAINTAINING

HIGHWAY

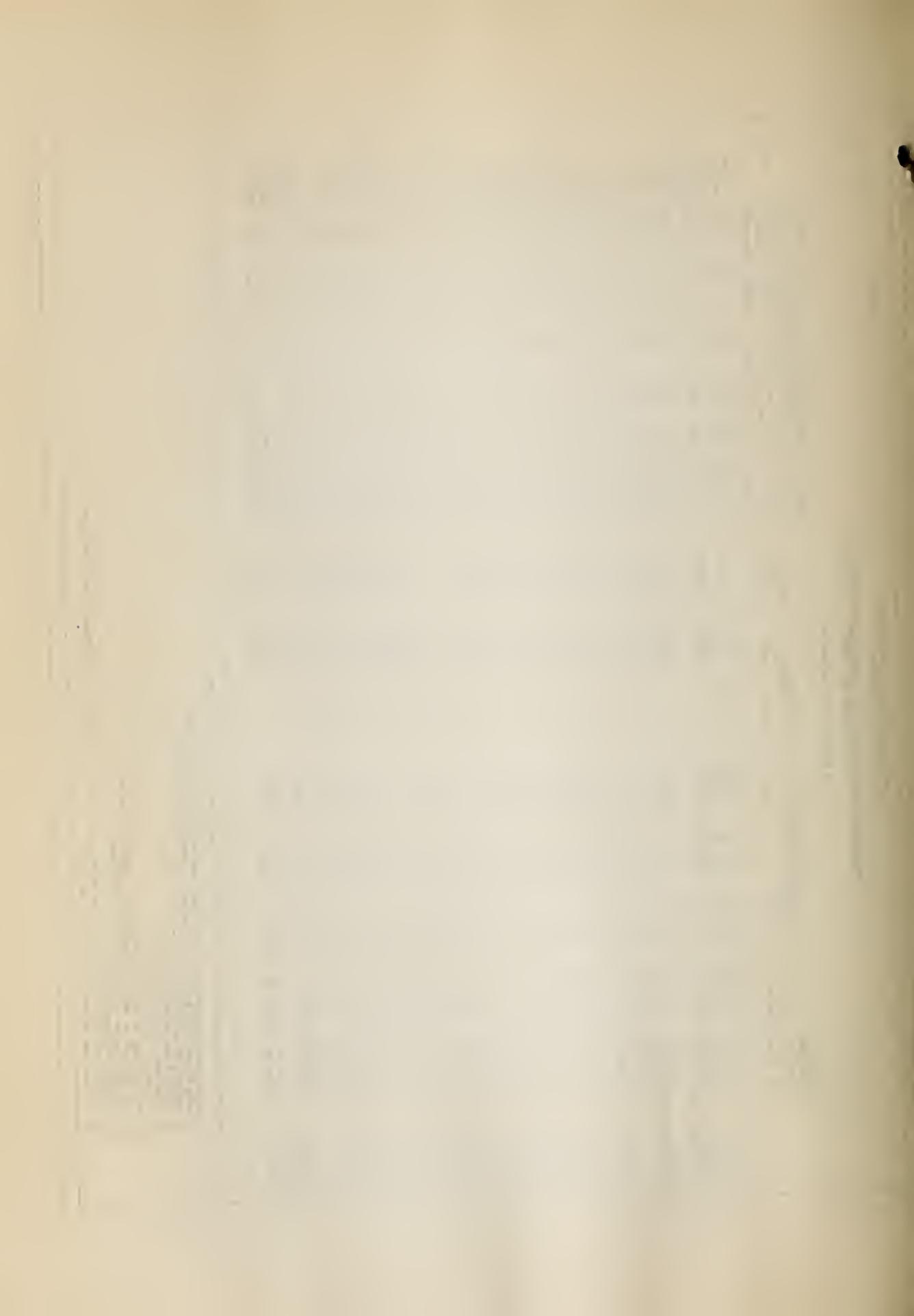
DEPARTMENTS

BY STATE HIGHWAY DEPARTMENTS

OF ROAD

MAINTAINING

HIGHWAY



PROGRESS OF FEDERAL HIGHWAY LEGISLATION

(NOT FOR RELEASE)

NEW BILLS INTRODUCED IN CONGRESS SINCE THE LAST ISSUE OF THE NEWS LETTER AND FURTHER ACTION ON BILLS PREVIOUSLY INTRODUCED ARE SUMMARIZED BELOW:

H. R. 4625. - INTRODUCED IN THE HOUSE ON DECEMBER 5, BY R. W. MOORE OF VIRGINIA, AND DESCRIBED IN THE DECEMBER, 1927, NEWS LETTER. THIS IS THE AUTHORIZATION BILL FOR THE MOUNT VERNON MEMORIAL HIGHWAY. IT WAS REPORTED OUT FAVORABLY BY THE COMMITTEE ON ROADS ON MARCH 28, 1928.

H. R. 8269. - SIGNED BY THE PRESIDENT ON FEBRUARY 2, 1928. INCLUDES AN APPROPRIATION OF \$3,000, AS DESCRIBED IN THE JANUARY, 1928, NEWS LETTER, TO PAY THE QUOTA OF THE UNITED STATES IN THE PERMANENT ASSOCIATION OF INTERNATIONAL ROAD CONGRESSES.

H. R. 9136. - THIS IS THE APPROPRIATION BILL FOR THE DEPARTMENT OF INTERIOR FOR THE FISCAL YEAR ENDING JUNE 30, 1929. IT HAS BEEN PASSED BY BOTH HOUSES OF CONGRESS AND WAS SIGNED BY THE PRESIDENT ON MARCH 7, 1928, BECOMING PUBLIC - NO. 100. THE BILL INCLUDES THE APPROPRIATIONS AND PROVISIONS FOR NATIONAL PARK ROADS DESCRIBED IN THE LAST NEWS LETTER.

H. R. 9767. - AUTHORIZES AN APPROPRIATION OF \$2,654,000 FOR THE RELIEF OF VERMONT ON ACCOUNT OF THE DESTRUCTION OF ROADS AND BRIDGES BY THE RECENT FLOOD, AS DESCRIBED IN THE FEBRUARY, 1928, NEWS LETTER. THIS APPROPRIATION WAS INCLUDED IN THE AGRICULTURAL APPROPRIATION BILL, AS AN AMENDMENT, ON MARCH 29, 1928.

H. R. 10565. - AUTHORIZES AN APPROPRIATION OF \$1,831,794 FOR THE RELIEF OF KENTUCKY ON ACCOUNT OF THE DESTRUCTION OF ROADS AND BRIDGES BY THE RECENT FLOOD, AS DESCRIBED IN THE FEBRUARY, 1928, NEWS LETTER. THIS APPROPRIATION WAS INCLUDED IN THE AGRICULTURAL APPROPRIATION BILL, AS AN AMENDMENT, ON MARCH 29, 1928.

H. R. 10864. - AUTHORIZES AN APPROPRIATION OF \$653,300 FOR THE RELIEF OF NEW HAMPSHIRE ON ACCOUNT OF THE DESTRUCTION OF ROADS AND BRIDGES BY THE RECENT FLOOD, AS DESCRIBED IN THE FEBRUARY, 1928, NEWS LETTER. THIS APPROPRIATION WAS INCLUDED IN THE AGRICULTURAL APPROPRIATION BILL, AS AN AMENDMENT, ON MARCH 29, 1928.

S. S. T. F. 1

2020

H. R. 12380. - INTRODUCED IN THE HOUSE ON MARCH 24, BY J. S. PARKER OF NEW YORK, AND REFERRED TO THE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE. PROVIDES FOR THE REGULATION OF MOTOR VEHICLES OPERATING IN INTERSTATE COMMERCE AS COMMON CARRIERS OF PERSONS ON THE PUBLIC HIGHWAYS. PROVIDES THAT STATE BOARDS SHALL ADMINISTER THE ACT, WHERE THEY EXIST; OTHERWISE THE INTERSTATE COMMERCE COMMISSION SHALL FUNCTION. PROVIDES THAT NO PERSON SHALL ENGAGE IN INTERSTATE COMMERCE WITH MOTOR VEHICLES UNTIL A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY HAS BEEN OBTAINED, AFTER HAVING FILED A SPECIFIED APPLICATION. THE APPLICANT MOTOR CARRIER MUST ALSO FILE A BOND, WITH THE BOARD OR COMMISSION, BINDING HIMSELF TO PAY DAMAGES ARISING OUT OF THE DEATH OR INJURY OF PERSONS OR PROPERTY. PROVIDES THAT RATES AND FARES SHALL BE JUST AND REASONABLE AS DETERMINED BY THE BOARD OR COMMISSION. PROVIDES THAT THE BOARD OR COMMISSION SHALL HAVE AUTHORITY TO REQUIRE CONTINUOUS AND ADEQUATE SERVICE AT JUST AND REASONABLE RATES. PROVIDES THAT WHERE A CONTROVERTED QUESTION INVOLVES TWO OR MORE STATES THAT THE SEVERAL BOARDS IN SESSION MAY DECIDE THE MATTER. PROVIDES FOR THE CREATION OF A JOINT BOARD FROM REPRESENTATIVES OF THE SEVERAL STATE BOARDS TO DECIDE ON MATTERS OTHER THAN RATES. PROVIDES FOR APPEALS FROM THE DECISION OF A STATE BOARD OR THE JOINT BOARD TO THE INTERSTATE COMMERCE COMMISSION. PROVIDES FOR THE SERVICE OF ORDERS OF THE BOARDS UPON INTERSTATE MOTOR CARRIERS. PROVIDES A FINE OF \$100 FOR THE FIRST OFFENSE AND A FINE OF NOT MORE THAN \$500 FOR SUBSEQUENT VIOLATIONS OF THE ORDERS OF THE BOARD OR COMMISSION. PROVIDES THAT THE ACT SHALL NOT BE CONSTRUED TO AFFECT INTERSTATE COMMERCE BY MOTOR CARRIERS. THESE ARE SUBJECT ONLY TO STATE LAWS AND SUPERVISION.

H. R. 12385. - INTRODUCED IN THE HOUSE ON MARCH 24, BY D. B. COLTON OF UTAH, AND REFERRED TO THE COMMITTEE ON ROADS. PROVIDES FOR CERTAIN AMENDMENTS TO THE EXISTING FEDERAL-AID ROAD LEGISLATION. PROVIDES THAT PARAGRAPH 4, SECTION 4 OF THE POST OFFICE APPROPRIATION BILL FOR THE FISCAL YEAR ENDING JUNE 30, 1923, PRESCRIBING LIMITATIONS ON THE PAYMENTS OF FEDERAL FUNDS PER MILE, SHALL BE SO AMENDED THAT THE FEDERAL SHARE SHALL IN NO CASE EXCEED 50 PER CENT OF THE TOTAL COST OF THE PROJECT EXCEPT AS AUTHORIZED TO BE INCREASED IN THE PUBLIC-LAND STATES. PROVIDES THAT PARAGRAPH 6 OF THE FEDERAL HIGHWAY ACT, APPROVED NOVEMBER 9, 1921, REQUIRING THAT NOT MORE THAN 60 PER CENT OF THE FEDERAL AID ALLOTTED TO ANY STATE SHALL BE EXPENDED UPON THE PRIMARY ROADS, AS FURTHER QUALIFIED, SHALL BE REPEALED. PROVIDES FOR THE FURTHER AMENDMENT OF SECTION 11 OF THE FEDERAL HIGHWAY ACT, APPROVED NOVEMBER 9, 1921, SO THAT FEDERAL AID MAY BE GRANTED UP TO ONE HUNDRED PER CENT OF THE COST OF THE PROJECT

ON CERTAIN ROADS IN THE PUBLIC-LAND STATES, PROVIDED THE STATE SHALL ALLOCATE DURING THE SAME FISCAL YEAR, UPON SOME OTHER FEDERAL-AID PROJECT, THE AMOUNT IT WOULD ORDINARILY HAVE BEEN REQUIRED TO SPEND ON THE 100-PER CENT PROJECT. PROVIDES FOR THE PLANTING AND MAINTENANCE OF SHADE TREES UPON APPROVED SECTIONS OF THE FEDERAL-AID HIGHWAY SYSTEM. PROVIDES THAT THE TOTAL MILEAGE OF THE FEDERAL-AID HIGHWAY SYSTEM IN A STATE MAY EXCEED 7 PER CENT OF THE TOTAL MILEAGE IN THE STATE, BY THE MILEAGE OF ROADS IN THE SYSTEM WITHIN FEDERAL RESERVATIONS. PROVIDES THAT FEDERAL FUNDS MAY BE EXPENDED ON THAT PORTION OF A HIGHWAY OR STREET WITHIN A MUNICIPALITY HAVING A POPULATION OF 2,500 OR MORE, ALONG WHICH, FROM A POINT ON THE CORPORATE LIMITS INWARDLY, THE HOUSES AVERAGE MORE THAN 200 FEET APART: PROVIDED, THAT NO FEDERAL FUNDS SHALL BE EXPENDED FOR THE CONSTRUCTION OF ANY BRIDGE WITHIN OR PARTLY WITHIN ANY MUNICIPALITY HAVING A POPULATION OF MORE THAN 30,000 AS SHOWN BY THE LATEST AVAILABLE FEDERAL OR STATE CENSUS; BUT THIS LIMITATION SHALL NOT APPLY IN THE CASE OF AN INTERSTATE BRIDGE, INCLUDING APPROACHES, JOINING STATE WHICH MAY BE WITHIN A MUNICIPALITY HAVING A POPULATION OF NOT MORE THAN 10,000. PROVIDES THAT ALL ACTS OR PARTS OF ACTS INCONSISTENT WITH THE PROVISIONS OF THIS ACT SHALL BE REPEALED.

H. J. Res. 107. - THIS RESOLUTION WAS DESCRIBED IN THE FEBRUARY, 1928, NEWS LETTER. S. J. Res. 31 WAS SUBSTITUTED FOR THIS BILL, PASSED, AND SIGNED BY THE PRESIDENT, ON MARCH 29, 1928.

H. J. Res. 108. - THIS RESOLUTION WAS DESCRIBED IN THE FEBRUARY, 1928, NEWS LETTER. S. J. Res. 30 WAS SUBSTITUTED FOR THIS BILL, PASSED, AND SIGNED BY THE PRESIDENT ON APRIL 4, 1928.

H. J. Res. 252. - INTRODUCED IN THE HOUSE ON MARCH 27, BY C. COLE OF IOWA, AND REFERRED TO THE COMMITTEE ON FOREIGN AFFAIRS. AUTHORIZES THE ASSISTANCE OF THE UNITED STATES GOVERNMENT IN THE CONSTRUCTION OF AN INTER-AMERICAN HIGHWAY IN THE WESTERN HEMISPHERE.

H. J. Res. 256. - INTRODUCED IN THE HOUSE ON MARCH 28, BY W. J. SEARS OF FLORIDA AND REFERRED TO THE COMMITTEE ON ROADS: AUTHORIZES THE BUREAU TO MAKE A SURVEY TO DETERMINE THE COST OF CERTAIN BRIDGES ON UNITED STATES ROUTE 1, AND ITS EXTENSION FROM THE FLORIDA MAINLAND TO KEY WEST. A SIMILAR BILL - H. RES. 117 - WAS DESCRIBED IN THE LAST NEWS LETTER.

H. J. Res. 259. - INTRODUCED IN THE HOUSE ON APRIL 2, BY C. J. MCLEOD OF MICHIGAN, AND REFERRED TO THE COMMITTEE ON FOREIGN AFFAIRS. AUTHORIZES THE ASSISTANCE OF THE UNITED STATES GOVERNMENT IN THE CONSTRUCTION OF AN INTER-AMERICAN HIGHWAY IN THE WESTERN HEMISPHERE.

H. Res. 117. - THIS BILL WAS DESCRIBED IN THE LAST ISSUE OF THE NEWS LETTER. IT WAS REPORTED OUT ON MARCH 27, 1928, BY THE COMMITTEE ON ROADS WITH AN AMENDMENT ELIMINATING THE CLAUSE ENDORSING THE CONSTRUCTION OF THE BRIDGES BY THE GOVERNMENT, THUS LIMITING THE WORK OF THE BUREAU TO A SURVEY AND ESTIMATE OF THE COST OF THE WORK.

S. 1718. - THIS BILL WAS DESCRIBED IN THE DECEMBER, 1927, NEWS LETTER. IT WAS REPORTED OUT WITHOUT AMENDMENT ON APRIL 13, 1928, BY THE SENATE COMMITTEE ON POST OFFICES AND POST ROADS.

S. 2699. - THIS BILL WAS DESCRIBED IN THE FEBRUARY, 1928, NEWS LETTER. IT IS SIMILAR TO H. R. 9767 DESCRIBED ABOVE. ON MARCH 3, 1928, THIS APPROPRIATION WAS INCLUDED AS AN AMENDMENT TO THE AGRICULTURAL APPROPRIATION BILL.

S. 3674. - INTRODUCED IN THE HOUSE ON MARCH 19, BY T. L. ODDIE OF NEVADA, AND REFERRED TO THE COMMITTEE ON POST OFFICES AND POST ROADS. AMENDS EXISTING FEDERAL-AID ROAD LEGISLATION AND AUTHORIZES AN APPROPRIATION OF \$3,500,000 FOR EACH OF THE FISCAL YEARS 1929, 1930, AND 1931, FOR THE CONSTRUCTION OF ROADS ON THE FEDERAL-AID SYSTEM IN THE PUBLIC-LAND STATES. THESE SUMS ARE IN ADDITION TO THE OTHER FEDERAL AID AUTHORIZED TO BE APPROPRIATED, AND NO CONTRIBUTION FROM THE STATES SHALL BE REQUIRED IN THE EXPENDITURE THEREOF. ON APRIL 13, THIS BILL WAS REPORTED OUT FROM THE COMMITTEE WITHOUT AMENDMENT.

S. 3874. - INTRODUCED IN THE SENATE ON APRIL 3, BY T. J. WALSH OF MONTANA, AND REFERRED TO THE COMMITTEE ON POST OFFICES AND POST ROADS. AUTHORIZES AN APPROPRIATION OF \$1,943,200 FOR THE CONSTRUCTION OF A HIGHWAY FROM RED LODGE, MONTANA, TO THE BOUNDARY OF YELLOWSTONE NATIONAL PARK NEAR COOKE CITY.

S. 3992. - INTRODUCED IN THE SENATE ON APRIL 9, BY J. E. WATSON OF INDIANA, AND REFERRED TO THE COMMITTEE ON INTERSTATE COMMERCE. THIS BILL IS IDENTICAL WITH H. R. 12380 AS DESCRIBED ABOVE.

S. J. RES. 30. - THIS BILL WAS DESCRIBED IN THE DECEMBER, 1927, NEWS LETTER. IT WAS SIGNED BY THE PRESIDENT ON APRIL 4, 1928, AND IS NOW PUBLIC RESOLUTION 24.

S. J. RES. 31. - THIS BILL WAS DESCRIBED IN THE DECEMBER, 1927,
NEWS LETTER. IT WAS SIGNED BY THE PRESIDENT ON APRIL 29, 1928,
AND IS NOW PUBLIC RESOLUTION 18.

